

**BEFORE THE UNITED STATES DEPARTMENT OF THE INTERIOR,
U.S. FISH AND WILDLIFE SERVICE DATA QUALITY OFFICIAL**

GARFIELD COUNTY, COLORADO)
GRAND COUNTY, COLORADO)
JACKSON COUNTY, COLORADO)
MESA COUNTY, COLORADO)
MOFFAT COUNTY, COLORADO)
RIO BLANCO COUNTY, COLORADO)
CARTER COUNTY, MONTANA)
FALLON COUNTY, MONTANA)
FERGUS COUNTY, , MONTANA)
MCCONE COUNTY, MONTANA)
MUSSELSHELL COUNTY, MONTANA)
PHILLIPS COUNTY, MONTANA)
PRAIRIE COUNTY, MONTANA)
RICHLAND COUNTY, MONTANA)
TOOLE COUNTY, MONTANA)
YELLOWSTONE COUNTY, MONTANA)
ELKO COUNTY, NEVADA)
EUREKA COUNTY, NEVADA)
UINTAH COUNTY, UTAH)
WESTERN ENERGY ALLIANCE)
AMERICAN EXPLORATION & MINING)
ASSOCIATION)
COLORADO MINING ASSOCIATION)
COLORADO WOOL GROWERS ASSOCIATION)
INDEPENDENT PETROLEUM ASSOCIATION)
OF AMERICA)
INTERNATIONAL ASSOCIATION OF)
DRILLING CONTRACTORS)
MONTANA ASSOCIATION OF OIL, GAS &)
COAL COUNTIES)
MONTANA PETROLEUM ASSOCIATION)
NEVADA MINING ASSOCIATION)
PETROLEUM ASSOCIATION OF WYOMING)
PUBLIC LANDS COUNCIL)
UTAH MULTIPLE USE COALITION)

**Data Quality Act Challenge
to U.S. Department of the Interior
Dissemination of Information
Presented in the U.S. Fish and
Wildlife Service Conservation
Objectives Team Report**

March 18, 2015

Petitioners

v.

U.S. FISH AND WILDLIFE SERVICE

CHALLENGE PURSUANT TO THE DATA QUALITY ACT

Correspondence Control Unit
Attention: Information Quality Correction
Request Processing
U.S. Fish and Wildlife Service
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I. Introduction

The counties and organizations listed above (the “Petitioners”) hereby submit this Challenge for Correction of Information (“Challenge”) against the U.S. Fish and Wildlife Service (“FWS”) entitled “Greater Sage-grouse (*Centrocercus urophasianus*) Conservation Objectives Team Final Report (February 2013) (the “COT Report”) pursuant to the Federal Information Quality Act, (44 U.S.C. § 3516) (“Data Quality Act” or “DQA”) and the “Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information disseminated by Federal Agencies” issued by the Office of Management and Budget (67 Fed. Reg. 8452 (Feb. 22, 2002) (“OMB Guidelines”)), as well as the “Information Quality Guidelines” of the U.S. Department of the Interior (67 Fed. Reg. 50687 (Aug. 5, 2002) (“DOI Guidelines”)) and FWS Guidelines (“FWS Guidelines”)¹ collectively known as (the “Guidelines”) as well as presidential memoranda and secretarial orders on scientific integrity and transparency as discussed below.

In March of 2010, FWS issued a listing decision on greater sage-grouse (“GRSG”) under the Endangered Species Act (“ESA”).² FWS cited an alleged inadequacy of existing regulatory

¹ Available at: http://www.fws.gov/informationquality/topics/InformationQualityGuidelinesrevised6_6_12.pdf

² 75 Fed. Reg. 13910 (Mar. 23, 2010).

mechanisms in concluding listing was warranted but precluded by higher priorities (the “WBP Decision”).³ Pursuant to a settlement agreement with activist litigants, FWS agreed to consider listing the species under the ESA by September 30, 2015. The settlement agreement is presently being challenged by at least one of the aforementioned Petitioners.

The COT Report was prepared by five representatives from FWS and ten from State agencies in a collaborative effort to develop range-wide conservation objectives for GRSG and to inform and influence FWS in its upcoming listing decision. The COT Report is a one hundred thirteen (113) page document with conclusions on wildlife ecology, wildlife science, conservation biology, GRSG biology, and GRSG population dynamics.⁴ There was no opportunity for public review or comment on this highly influential document prior to its release.

In the meantime, BLM and the U.S. Forest Service (“USFS”) drafted amendments for some 98 land use plans (“Land Use Plan Amendments”) across 11 western states to identify and incorporate appropriate GRSG conservation measures from the COT Report and BLM’s National Technical Team (“NTT”) Report.⁵ BLM and USFS intend to make final decisions on these plans in 2015 so that regulatory mechanisms are included before FWS makes a listing decision.

³ Dept. of the Interior, Bureau of Land Management, *Northwest Colorado Greater Sage-Grouse Draft Land Use Plan Amendment and Environmental Impact Statement*, p. xxi (August 2013) (“NW CO DEIS”).

⁴ Dan Ashe, The Fish and Wildlife Service, <http://www.fws.gov/mountain-prairie/species/birds/sagegrouse/COT/COT-Report-with-Dear-Interested-Reader-Letter.pdf>, at 1-2, (published March 22, 2013).

⁵ BLM, *Federal Agencies Announce Initial Step to Incorporate Greater Sage-Grouse Conservation Measures into Land Management Plans* (Dec. 8, 2011), http://www.blm.gov/wo/st/en/info/newsroom/2011/december/NR_12_08_2011.html; BLM, *Northwest Colorado Greater Sage-Grouse Draft Land Use Plan Amendment and Environmental Impact Statement* at xxvi, and 5-6 (August 2013), https://www.blm.gov/epl-front-office/projects/lup/36511/44083/47449/Draft_Grouse_EIS_Build_1.pdf (“The COT Report includes areas identified as priority areas for conservation, the most important areas needed for maintaining GRSG representation, redundancy, and resilience across the landscape.”).

While the COT Report's stated purpose is to, "to define the degree to which threats need to be reduced or ameliorated to conserve GRSG so that it is no longer in danger of extinction or likely to become in danger of extinction in the foreseeable future,"⁶ it lacks the scientific quality, integrity, objectivity and utility required by the DQA, the Guidelines and the additional authority cited herein. The COT Report description of "science" makes no mention of hypothesis testing or potential falsification. Accordingly, it runs counter to the DOI Manual on Scientific Integrity as well as the DQA and its Guidelines. The DOI Manual defines the scientific method as, "[A] method of research in which a problem is identified, relevant data are gathered, a hypothesis is formulated from these data, and the hypothesis is empirically tested in a manner specified by documented protocols and procedures."⁷ The fact that the COT members started with preferred conservation measures, and then sought to justify them, reveals that it misused the scientific method in order to reverse-engineer their recommendations.

The COT Report acknowledges uncertainty nearly 100 times in the document. It concedes there is a shortage of established research, credible conservation results and a lack of clear patterns with regard to GRSG. Population numbers, habitat, range, threats and viability are all acknowledged uncertainties. Despite those obvious and admitted shortcomings, FWS persists with presenting the COT Report as the best science available and the "gold standard" by which all GRSG conservation measures should be measured. As demonstrated in this Challenge, that is not the case.

FWS Director Ashe recognized the importance of the document and its shortcomings in his March 22, 2013, letter accompanying the public release of the COT Report.⁸ According to

⁶ COT Report at 5.

⁷ 305 DM 3.5(N).

⁸ *Id.*

Director Ashe, the COT Report acknowledges the uncertainty associated with issuing such a report, but aims to “stimulate discussions” regarding the GRSG and planning efforts.⁹

The DQA, Section 515 of the Treasury and General Government Appropriations Act of FY 2001 (Public Law 106-554), requires Federal agencies to ensure and maximize the quality, objectivity, utility, and integrity of information, including statistical information, disseminated by Federal agencies on or after October 1, 2002. Agencies are required to review the quality of information before its dissemination and treat information quality as integral to every step.

The OMB government-wide guidelines impose three core responsibilities on the agencies:

- First, the agencies must embrace a basic standard of “quality” as a performance goal, and agencies must incorporate quality into their information dissemination practices. OMB’s guidelines explain that “quality” encompasses “utility” (usefulness to its intended users), “integrity” (security), and “objectivity.” “Objectivity” focuses on whether the disseminated information is accurate, reliable, and unbiased as a matter of presentation and substance.
- Second, the agencies must develop information quality assurance procedures that are applied before information is disseminated.
- Third, the OMB government-wide guidelines require that each agency develop an administrative mechanism whereby affected parties can request that agencies correct poor quality information that has been or is being disseminated. If one is dissatisfied with the initial agency response to a correction request he or she may file an administrative appeal.

The COT Report qualifies as information disseminated by FWS, or in the alternative, as FWS-sponsored information.¹⁰ “The intent of the COT was to produce a report that not only informs FWS’ listing determinations, but also outlines the necessary conservation actions to ensure the long-term persistence of healthy populations of the sage-grouse for the foreseeable

⁹ *Id.*

¹⁰ FWS Guidelines II-2; III-1 and III-2.

future.”¹¹ Because DOI agencies are considering Land Use Plan Amendments based upon the COT Report, and it may be utilized in a listing decision for GRSG under the ESA, the COT Report is “highly influential” information subject to even higher standards of quality.¹² The COT Report is not subject to any exclusion from the DQA nor from the Guidelines.¹³

Petitioners have identified a number of serious flaws with the COT Report that, if implemented, will have enormous social and economic consequences in the West without commensurate benefits to local GRSG populations and habitat. While FWS characterizes the Report as “guidance only,” its recommendations are being incorporated into Land Use Plan Amendments that will affect nearly 60 million acres of public land in the West.¹⁴

FWS must rectify these issues and recognize that state and local conservation efforts are already underway that have proven more effective than the top-down, one-size-fits-all federal approach. Therefore, Petitioners request FWS retract the COT Report and all reliance thereon in agency decisions on permits, authorizations and the listed status of GRSG under the ESA. Alternatively, FWS could issue an amended COT Report that uses sound analytical methods and the best data available, including specifically the information omitted in the current Report and referenced herein, ensuring transparency and objectivity in the information disseminated.

The information disseminated should be corrected upon consideration of the most recent or thorough information from stakeholders, the public and the scientific community. FWS recognizes that objectives in the COT report are “subject to modification as dictated by new

¹¹ Draft Scientific Peer Review of the Sage-Grouse Conservation Objectives Draft Report at 1 (Oct. 2012).

¹² FWS Guidelines III-10.

¹³ See, e.g. FWS Guidelines II-3.

¹⁴ See COT Report at 5; see also, e.g., *BLM, Northwest Colorado Greater Sage-Grouse Draft Land Use Plan Amendment and Environmental Impact Statement* at xxvi, and 5-6 (August 2013), https://www.blm.gov/epl-front-office/projects/lup/36511/44083/47449/Draft_Grouse_EIS_Build_1.pdf

findings, changes in species' status, and the completion of conservation actions.”¹⁵ This challenge presents the most recent and thorough information such that FWS should retract or amend the COT Report accordingly.

II. The Petitioners

Petitioners have a direct interest in the quality and integrity of agency science and decision making, including how the COT Report affects GRSG and public lands management in the West. The Petitioners engage in ranching, grazing, mining, and energy development on multiple-use federal, state and private lands throughout the West, or are counties that rely on these activities for their economic and social viability. The management restrictions, regulatory measures and closures recommended in the COT Report will have a direct impact on the Petitioners, the economy and the future viability of scores of communities, local governments, small businesses, family farms and ranches, mining enterprises, electricity and oil and natural gas development in the West.

- Counties:
 - Colorado: Garfield County, Grand County, Jackson County, Mesa County, Moffat County, Rio Blanco County
 - Montana: Carter County, Fallon County, Fergus County, McCone County, Musselshell County, Phillips County, Prairie County, Richland County, Toole County, Yellowstone County
 - Nevada: Elko County, Eureka County
 - Utah: Uintah County
- Western Energy Alliance (the “Alliance”) represents more than 450 companies engaged in all aspects of environmentally responsible exploration and production of oil and natural gas across the West. The Alliance represents independents, the majority of which are small businesses with an average of fifteen employees.
- American Exploration & Mining Association is a 120 year old, 2,500 member, non-profit, non-partisan trade association based in Washington. AEMA members reside in 42 states and are actively involved in prospecting, exploring, mining, and reclamation closure activities on federally administered lands, especially in the West. Our diverse

¹⁵ COT Report at ii.

membership includes every facet of the mining and represents a true cross-section of the American mining community from small miners and exploration geologists to junior and large companies. Most of our members are individual citizens or small businesses.

- Colorado Mining Association is an industry association, founded in 1876, whose more than 1,000 members include individuals and organizations engaged in the exploration, development and production of coal, metals, agricultural and industrial minerals throughout Colorado, the west and the world. CMA's membership also includes persons and enterprises providing support, services and supplies to the mining industry.
- Colorado Wool Growers Association was founded in 1926. It is premier legislative, regulatory, and policy management organization for the Colorado sheep industry.
- Independent Petroleum Association of America (IPAA) represents the thousands of independent oil and natural gas producers and service companies across the United States. Independent producers develop 95 percent of domestic oil and gas wells, produce 54 percent of domestic oil and produce 85 percent of domestic natural gas. IPAA members are dedicated to meeting environmental requirements while economically developing and supplying energy resources for consumers.
- The International Association of Drilling Contractors (IADC) is a leading oil and gas trade association and it is considered the authoritative body in the drilling space. Headquartered in Houston, Texas, IADC represents the interest of drilling contractors operating throughout the world including all oil and gas producing areas of the United States.
 - Montana Association of Oil, Gas & Coal Counties is a non-profit corporation providing leadership on energy issues and promoting responsible energy development for the future of Montana. There are 34 counties that belong to the Association.
 - The Montana Petroleum Association is a voluntary, non-profit trade association, whose members include oil and natural gas producers, gathering and pipeline companies, petroleum refineries and service providers and consultants.
 - The Nevada Mining Association (NvMA) is a statewide trade organization formed over 100 years ago to address issues facing the mining industry in Nevada. The association has hundreds of members representing mine operators, the exploration community and vendors.
 - The Petroleum Association of Wyoming (PAW) is Wyoming's largest and oldest oil and gas organization dedicated to the betterment of the state's oil and gas industry and public welfare. PAW members, ranging from independent operators to integrated companies, account for approximately ninety percent of the natural gas and eighty percent of the crude oil produced in Wyoming.

- The Public Lands Council (PLC), headquartered in Washington, D.C., represents ranchers who use public lands, manage the natural resources and preserve the unique heritage of the West. PLC is a Colorado nonprofit corporation. PLC represents state and national cattle, sheep and grasslands associations. PLC works to maintain a stable business environment in which livestock producers can conserve the natural resources of the West while producing food and fiber for the nation and the world.
- Utah Multiple Use Coalition: Recognizing Utah is a public lands state, eighteen organizations relying on access for natural resources, grazing, recreation and jobs banded together for a single united voice. Through prudent application of multiple-use management principles, precious resources such as timber, wildlife, forage, minerals, energy, water and recreation can co-exist with Utah’s unique and sensitive environments. Coalition members include the Utah Farm Bureau, Utah Mining Association, Utah Woolgrowers, Utah Rural Electric Association, and Western Counties Alliance.

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III. The COT Report Violates the Quality, Objectivity, Utility and Integrity Standards of the DQA and its Guidelines

The COT Report: (1) was developed with unsound research methods resulting in a partial and biased presentation of information; (2) ignores studies that do not support its theses; (3) jumps to conclusions that are not scientifically supported but are pure conjecture; and (4) disseminates information that is not objective or reliable and that lacks scientific integrity. Both the DQA and the Guidelines require agencies to “ensure and maximize” the quality, objectivity, utility, and integrity” of information disseminated by federal agencies.¹⁶ “Utility” refers to “the

¹⁶ DQA §515(a), OMB Guidelines, § 11(2), 67 Fed. Reg. at 8458.

usefulness of the information to its intended users, including the public.”¹⁷ For the reasons discussed herein, the COT Report fails to meet quality, objectivity, utility and integrity standards of the DQA, the Guidelines and the additional authorities cited herein. *See* Exhibit A: The COT Report Fails to Meet DQA Standards at 2-8; *see also* Exhibit B: Studies Cited in the COT Report Fail to Meet DQA Standards at 16-17, 22, 24-16, and 29.

Accordingly, Petitioners ask FWS to correct, retract or supplement information referenced in the COT Report and also seek to ensure that all information disseminated by FWS meets the quality, objectivity, utility and integrity requirements of the DQA and the Guidelines.

A. The COT Report is Not Transparent

The COT Report fails to meet quality and utility standards of the DQA and the Guidelines. OMB Guidelines require a high degree of transparency for influential information such as the NTT Report. Transparency equates to disclosure of the “data and methods of analysis” such that replication of results could be achieved.¹⁸ Peer-review of original and supporting data and results “does not necessarily imply that the results are transparent and replicable.”¹⁹ The many shortcomings of the COT Report related to peer review are discussed in detail below.

OMB has recognized the benefits of transparency extend beyond the ability to spot errors in government work. Far more important is the ability to assess the extent to which results hinge upon an agency’s choices in analysis.²⁰ “Agency guidelines shall, however, in all cases, require a disclosure of the specific data sources that have been used and the specific quantitative

¹⁷ OMB Guidelines V(2). 67 Fed. Reg. at 8459. (emphasis added).

¹⁸ OMB Guidelines V(3)(b)(ii).

¹⁹ http://www.whitehouse.gov/omb/fedreg_reproducible

²⁰ http://www.whitehouse.gov/omb/fedreg_reproducible

methods and assumptions that have been employed."²¹ OMB explains that: "[i]n assessing the usefulness of information that the agency disseminates to the public, the agency needs to consider the uses of the information not only from the perspective of the agency but also from the perspective of the public. As a result, when transparency of information is relevant for assessing the information's usefulness from the public's perspective, the agency must take care to ensure that transparency has been addressed in its review of the information."²² As discussed herein, the COT Report was far from transparent.

FWS failed to provide basic information to the public about the COT Report, despite the heavy reliance on it in agency decision-making. In response to questions posted from a hearing before the House Natural Resources Committee in 2013 titled *Examining the Endangered Species Act*, Counselor Michael Bean was asked how FWS justifies withholding information and data paid for by taxpayer monies. Bean opined that FWS complies with executive mandates and policies, routinely provides data upon request, and stated that FWS only withholds materials pursuant to the terms of the Freedom of Information Act ("FOIA").

Petitioners efforts to seek transparency on the COT Report contradict Mr. Bean's assertions. The Alliance had to undergo great lengths to obtain relevant information about peer review of the COT Report. The Alliance filed a FOIA request on May 2, 2013 and a follow-up letter on June 14, 2013. When FWS failed to reply, the Alliance submitted a DQA request for the information on July 30, 2013. Eventually, on October 15, 2013, the Alliance was forced to file suit against FWS for information that should have already been in the public domain pursuant to the DQA, its Guidelines and presidential and secretarial memoranda and orders discussed further herein.

²¹ OMB Guidelines V. (emphasis added).

²² OMB Guidelines, § V(2) (emphasis added).

FOIA requires an agency to respond to such requests within 20 business days. FWS refused to disclose all of the information requested by the Alliance in these FOIA requests until the Alliance initiated litigation. In the case of the Alliance's FOIA cases against FWS, it took nearly 16 months from filing the FOIA to receive the information requested. These actions ultimately resulted in the disclosure of more than 162 pages of relevant information that should have been disclosed and open for public review and comment.

Had FWS complied with the aforementioned authorities, many of the Alliance's extensive legal efforts would have been unnecessary and the public could have timely ascertained whether these documents were scientifically sound and substantially capable of replication.

B. The COT Report is Not Reproducible

Transparency is a lynchpin to reproducibility. "The purpose of the reproducibility standard is to cultivate a consistent agency commitment to transparency about how analytic results are generated: the specific data used, the various assumptions employed, the specific analytic methods applied, and the statistical procedures employed."²³ "Reproducibility means that the information is capable of being substantially reproduced, subject to an acceptable degree of imprecision."²⁴ Again, the more important the information disseminated, the more rigorous the standard.²⁵

The COT Report fails to meet DQA standards for reproducibility. OMB Guidelines provide a higher standard than even peer review applies to influential information, namely a "substantial reproducibility standard."²⁶ DOI and FWS have adopted, and indeed must adopt,

²³ *Id.*

²⁴ See OMB Guidelines V10.

²⁵ OMB Guidelines V10.

²⁶ 67 Fed. Reg. 8452, 8457 (Feb. 22, 2002).

OMB Guidelines. FWS Guidelines define “reproducibility” as “information [is] capable of being substantially reproduced, subject to an acceptable degree of precision.”²⁷ In appropriate cases, OMB encourages the agencies to consider “confirmation” as a standard in assessing the objectivity of original and supporting data.²⁸ “The more important the information, the higher the quality standards to which it should be held, for example in those situations involving ‘influential scientific, financial or statistical information’”....²⁹

The COT Report fails to meet the substantially reproducible standard required under the DQA and the Guidelines. *See* Exhibit A at 2-3, and 6; *see also* Exhibit B at 10-12. For these reasons, the information disseminated violates the “objectivity” standard and the “utility” standard and are not useful to the public because they are made without giving the public access to the underlying information.

C. The COT Report Fails the Required Robustness Checks

The COT Report failed to undergo adequate robustness checks to meet the DQA standards of quality, objectivity, utility and integrity. *See* Exhibit A at 1-8; *see also* Exhibit B at 16-17, 22, 24-27, and 29. For example, there are substantial technical errors in the COT Report including misleading use of authority. This makes it difficult to provide scientific verification of the COT Report’s claims. Furthermore, by making recommendations, and then seeking scientific support for them, the COT Report was in effect backing into their preferred conclusions rather than providing a comprehensive and objective treatment of alternatives.

These issues evidence bias and a lack of transparency and reproducibility in contravention to the DQA and the Guidelines. They also violate Executive Order 13563, which calls for “objectivity of any scientific and technical information and processes used to support

²⁷ FWS Guidelines at III-12.

²⁸ 67 Fed. Reg. 8452, 8457 (Feb. 22, 2002).

²⁹ OMB Guidelines V(3)(b)(ii).

[an] agency’s regulatory actions.”³⁰ As a result, the public has not been afforded the opportunity to determine the objectivity, utility, and reproducibility of the COT Report in contravention of the DQA, the Guidelines and the additional authorities referenced herein.

To the extent FWS believes it cannot disclose certain information that are material to information that it does disclose, robustness checks are required for ensuring compliance with the DQA because the public will not be afforded any other mechanism for determining the objectivity, utility, and reproducibility of this non-disclosed information. In fact, “agencies shall apply especially rigorous robustness checks to analytic results and document what checks were undertaken.”³¹ DOI and FWS Guidelines mirror this requirement.³² The COT Report underwent no such rigorous checks.

OMB explained in its February 22nd agency-wide guidelines that the “general standard” for these robustness checks is “that the information is capable of being substantially reproduced, subject to an acceptable degree of imprecision.”³³ “For example, a qualified party, operating under the same confidentiality protections as the original analysts, may be asked to use the same data, computer model or statistical methods to replicate the analytic results reported in the original study.”³⁴ Here, the COT Report, and many of the most influential studies and models it relies upon, are neither transparent nor reproducible. *See Exhibit A at 2-6; see also Exhibit B, gen.* The FWS Guidelines provide:

“Transparency about research design and methods is pivotal to reproducibility. With regard to analytical results, we will generally require sufficient transparency about data and methods that a qualified member of the public could undertake an independent reanalysis. These transparency standards apply to our analysis of data

³⁰ Available at: <http://www.gpo.gov/fdsys/pkg/FR-2011-01-21/pdf/2011-1385.pdf>.

³¹ OMB Guidelines V3.b.ii.B.ii (emphasis added).

³² FWS Guidelines IV-3.

³³ 67 Fed. Reg. 8452, 8457 (Feb. 22, 2002).

³⁴ http://www.whitehouse.gov/omb/fedreg_reproducible

from a single study as well as to analyses that combine information from multiple studies.”³⁵

The highly influential COT Report does not meet these rigorous standards. Moreover, the underlying data behind many of the studies has not been publicly released.

D. The COT Report Contains Conflicts of Interest

The Department of the Interior Manual (“DOI Manual”) defines a conflict of interest as “any personal, professional, financial, or other interests that conflict with the actions or judgments of those covered by this policy when conducting scientific and scholarly activities or using scientific and scholarly data and information because those interests may: (1) significantly impair objectivity; (2) create an unfair competitive advantage for any person or organization; or (3) create the appearance of either.”³⁶

A number of the relevant regulations and guidance stress the importance of independence³⁷ and the need to avoid conflicts of interest.³⁸ Among other things, independence means that a peer reviewer may not have been a contributor to the work product leading to the listing of a species and the peer reviewer has not been influenced by funding considerations. The National Academy of Sciences (“NAS”) considers financial interests, access to confidential

³⁵ FWS Guidelines IV-3.

³⁶ DOI Manual, available at <http://elips.doi.gov/elips/browse.aspx>; 305 DM 3.

³⁷ Interagency Cooperative Policy for Peer Review in Endangered Species Act Activities 59 Fed. Reg. 34270 (Jul. 1, 1994); OMB Peer Review Bulletin; Memorandum for the Heads of Executive Departments and Agencies. 74 Fed. Reg. 10671 (Mar. 11, 2009), available at: <http://www.gpo.gov/fdsys/pkg/FR-2009-03-11/pdf/E9-5443.pdf> (<http://www.whitehouse.gov/sites/default/files/microsites/ostp/scientific-integrity-memo-12172010.pdf>); Performance Work Statement for Scientific, Technical and Advisory Services (http://www.fws.gov/informationquality/peer_review/IDIQ_Performance_Work_Statement_17Nov2011.pdf); Information Quality Guidelines and Peer Review (http://www.fws.gov/informationquality/topics/InformationQualityGuidelinesrevised6_6_12.pdf).

³⁸ Policy on Committee Composition and Balance and Conflicts of Interest for Committees Used in the Development of Reports (<http://nationalacademies.org/coi/>); Final Information Quality Bulletin for Peer Review 70 Fed. Reg. 2664 (Jan. 14, 2005); Memorandum for the Heads of Executive Departments and Agencies (<http://www.whitehouse.gov/sites/default/files/microsites/ostp/scientific-integrity-memo-12172010.pdf>); Department Manual, Part 305, Chapter 3 (<http://www.fws.gov/science/pdf/DOIScientificIntegrityPolicyManual.pdf>).

information, reviewing one's own work, public statements and positions, and employees of sponsors as problems to be avoided in its conflicts policy.³⁹

In this case, a small number of GRSG specialist-advocates have had a disproportionate influence on formulating federal policy including their overlapping participation in preparation of the NTT and COT Reports as well as the highly influential USGS GRSG Monograph and peer reviews thereon. Since the three documents have interlocking relationships among their authors and peer reviewers which overlap with the authors of the few studies on which the Reports depend, the result is an insularity that clearly violates DQA and the Guidelines. More diverse expertise and viewpoints are clearly needed.

FWS failed to consider a range of diverse and objective scientific viewpoints and, instead, relied heavily on this small, select group of specialist-advocates with homogenous and biased opinions. For instance, FWS relied on the same scientists for the preparation of multiple reports. Dr. Jack Connelly served as both a COT member and as the co-editor of the Monograph. Dr. Steven T. Knick was an NTT author and another co-editor of the Monograph. Similarly, Shawn Espinosa was involved in the preparation of both the NOT and COT reports. Likewise, Dr. David E. Naugle was not only an NTT member, but also served as a source of support for the FWS document, which cited Naugle's work frequently.

Further demonstrating the lack of diversity, along with the lack of independence in authorship, is the fact that the authors of these influential reports frequently cited to their own previous work. For instance, Naugle, an NTT member, cited to his own work, Walker and Naugle 2011, in preparing the NTT Report. Another NTT member, Knick, cited his own work repeatedly throughout the NTT report. Knick and Hanser 2011 was cited six times in the NTT report, Knick et al. 2003 was cited once in the NTT Report, and Knick et al. 2011 was cited six

³⁹ Available at: <http://www.nap.edu/openbook.php?isbn=0309059437&page=9>

times by the NTT report.

If these authors weren't citing their own work, they were citing the work of colleagues with whom they had a long history of collaboration. For example, in the NTT Report, Naugle cited Doherty et al. 2008 six times, Walker et al. nine times, Holloran 2005 12 times, and Tack three times. However, Naugle had previously collaborated and co-authored papers with each of the four aforementioned authors. Naugle published Naugle et al. 2011a, which included as co-authors Doherty, Walker, Copeland, Holloran, and Tack. Naugle and Walker were also co-authors on another paper, Doherty et al. 2011. Naugle also co-authored at least three other papers with Doherty (Doherty et al. 2010a, Doherty et al. 2010b, and Doherty et al. 2011). Doherty and Holloran have been co-authors on at least one other paper.

The Reports rely on the same limited set of studies, reflecting a lack of diversity of viewpoints among the Reports. Doherty et al. 2008 was cited six times in the NTT Report and once in the COT Report. Walker et al. was cited nine times in the NTT Report and twice in the COT Report. Holloran 2005 was cited twelve times in the NTT Report and twice in the COT Report and nineteen times in the 2010 FWS listing decision on GRSG. Knick et al. was cited once in the NTT Report and fourteen times in the COT Report. Knick and Hanser was cited six times in the NTT Report, eight times in the COT Report, and 38 times in the 2010 GRSG listing decision. Knick et al. was cited six times by the NTT Report and twice by the COT Report. Leu and Hanser 2011 was cited in the USGS Monograph and three times in the COT Report. Yet with all the self-referential citing, these Report authors failed to consider a wide body of scientific literature, which is provided in Exhibit C.

Finally, there were a number of instances where authors who contributed to the Reports reviewed and edited their own work. For instance, Naugle served as his own editor for Naugle et

al. 2011a. Similarly, in the NTT Report, Knick cited to his own work, Knick et al. 2003, which he also edited.

These facts demonstrate that a handful of scientists, who have pre-established professional relationships and singular viewpoints, have had a disproportionately substantial influence on these Reports. When there is reliance upon singular viewpoints, and researchers who have overlapping participation in preparation of influential documents and peer reviews, there is a violation of the governing authority on scientific research and data. Such actions also fail to maintain independence and the avoidance of conflicts of interest.

Furthermore, many of the authors responsible for the reports leading to the listing of the species have historically demonstrated a disregard for the policies on independence in the peer review process. The Center for Environmental Science, Accuracy, & Reliability (“CESAR”) exposed similar issues in its review of the USGS GRSG Monograph, which involved a number of the authors who were also involved in the NTT and COT Reports, and found a lack of independence in both authorship in peer review.⁴⁰ Likewise, here, there is a discernible pattern of disregard for the policies and regulations governing independence and conflicts of interest.

As recently as March 12, 2015, Reese, Beck, and Holloran co-signed a letter to individual White House and DOI officials advocating for the most egregious regulatory restrictions in the NTT Report and virtually threatening an ESA listing if such measures were not adopted. Other signatories included COT member Connelly, NTT member Rinkes and Monograph authors Garton and Braun. This and similar activity indicates that these scientists have overstepped their bounds, and have gone from providing independent, objective science to advocating policies based on their biases.

⁴⁰ <https://www.hightail.com/download/UW14OU1VMVh0TWxYd3NUQw>.

The conflicts of interest that permeate the COT Report violate numerous sources of authority, including the DQA, its implementing Guidelines, the DOI Manual, NAS policy and various secretarial orders and presidential memoranda discussed herein.

E. Peer Review

The COT Report failed to undergo adequate peer review as required by the DQA, the Guidelines and the presidential and secretarial orders and memoranda discussed herein. Notably, this is not the first time the FWS peer-review process has been criticized. On December, 15, 2014, Majority Staff for the House Natural Resources Committee issued a report: *Under the Microscope: An examination of the questionable science and lack of independent peer review in Endangered Species Act listing decisions* (the “House Report”).⁴¹ The House Report detailed systemic flaws and inconsistencies with the peer review process employed by FWS.

Peer review is a process by which something proposed for research or publication and evaluated by a group of experts in the appropriate field.⁴² Peer review is used to ensure work meets appropriate standards of the scientific and technical community⁴³ and maximizes the quality, objectivity, utility, and integrity of provided information meets the standards of the scientific and technical community.⁴⁴ Reviewers are not to be selected from among the authors' close colleagues, students, or friends.⁴⁵

1. Peer Review Standards

DOI's Information Quality Mission Statement provides, in pertinent part:

“In order to ensure the accuracy and integrity of its published scientific information, DOI follows a robust peer review process wherein the information undergoes internal

⁴¹ http://naturalresources.house.gov/uploadedfiles/esa_peer_review_science-staff_report.pdf

⁴² <http://www.merriam-webster.com/dictionary/peer%20review>.

⁴³ *Id.*

⁴⁴ http://www.cio.noaa.gov/services_programs/pdfs/OMB_Peer_Review_Bulletin_m05-03.pdf

⁴⁵ http://www.apsanet.org/content_43805.cfm; <http://www.elsevier.com/journals/journal-of-molecular-biology/0022-2836/guide-for-authors>

peer review and is subject to public scrutiny. DOI, its bureaus and offices, and the National Invasive Species Council maintain the highest standards possible for published information to ensure integrity and transparency.”⁴⁶

Given the charge of the reviewers of the COT Report, we question how “robust” the peer review process actually was. In fact, FWS has failed to meet the applicable peer review planning standards.⁴⁷ In addition, peer review of the COT Report was not subject to any public scrutiny whatsoever.

DOI Guidelines require not only that information be consistent with the Guidelines, but that the agency maintain an administrative record of review proceedings.⁴⁸ FWS failed to do so. Further, for influential information, DOI commits to provide “more rigorous review of the conclusions than the review performed by the originating office.”⁴⁹ No such rigorous review was undertaken here.

The government-wide guidance for peer review of government science is established in the “*Final Information Quality Bulletin for Peer Review*” issued by OMB of the Executive Office of the President (the “OMB Peer Review Bulletin”).⁵⁰ The OMB Peer Review Bulletin provides detailed guidelines for peer review of influential scientific information and applies more stringent peer review requirements to highly influential scientific assessments. Peer review shall be solely of scientific and technical matters.⁵¹ It typically evaluates 1) the clarity of hypotheses, 2) the validity of the research design, 3) the quality of data collection procedures, the robustness of the methods employed, 4) the appropriateness of the methods for the hypotheses being tested,

⁴⁶ <http://www.doi.gov/archive/ocio/iq.html> (emphasis added).

⁴⁷ See DOI: Chief Information Officer, Department of the Interior Information Quality Mission Statement, DOI Bulletin for Peer Review, http://www.doi.gov/archive/ocio/iq_1.html.

⁴⁸ DOI Guidelines II.5.

⁴⁹ *Id.*

⁵⁰ *Id.*

⁵¹ <http://www.nrc.gov/public-involve/ml051600303.pdf>

5) the extent to which the conclusions follow from the analysis, and 6) the strengths and limitations of the overall product.⁵²

The OMB Peer Review Bulletin requires that reviewers are selected based upon 1) expertise, to ensure that the selective reviewer has the knowledge, experience, and skills necessary to perform the review; 2) balance: to represent a diversity of scientific perspective relevant to the subject; 3) independence: to ensure that the reviewer was not involved in producing the draft document to be revised; and 4) conflict of interest: to examine prospective reviewers' potential financial conflict including significant investments, consulting arrangements, employer affiliations, and grants/contracts.⁵³ The rigorous review required by the DQA, the Guidelines and the OMB Peer Review Bulletin was not completed for the COT Report.

2. Conflicts of Interest in Peer Review

The OMB Peer Review Bulletin requires agencies to adopt or adapt the National Academy of Sciences policy and procedures depicted in the "*Committee Composition and Balance and Conflicts of Interest*".⁵⁴ The term "conflict of interest" means any financial or other interest which conflicts with the service of the individual because it (1) could significantly impair the individual's objectivity or (2) could create an unfair competitive advantage for any person or organization.⁵⁵

As a result of the Alliance's FOIA litigation, FWS ultimately disclosed data and information relative to peer review of the COT Report.⁵⁶ Specifically, FWS released a document

⁵² See *Id.* at 3.

⁵³ http://www.cio.noaa.gov/services_programs/pdfs/OMB_Peer_Review_Bulletin_m05-03.pdf

⁵⁴ See *Id.* at 10.

⁵⁵ http://www.nationalacademies.org/coi/bi-coi_form-0.pdf

⁵⁶ Western Energy Alliance submitted a FOIA request to the FWS on May 2, 2013. When the FWS failed to respond, Western Energy Alliance filed a FOIA suit against the FWS on October 15, 2013. On October 24, 2013, the FWS provided some of the documents requested.

titled, “Scientific Peer Review of the Sage-Grouse Conservation Objectives Draft Report” (the “Peer Review Report”). From that disclosure, we understand FWS retained Atkins, North America (“Atkins”) to perform the review.

Atkins solicited five reviewers: Dr. Jeffrey L. Beck, University of Wyoming; Dr. Matthew J. Holloran, Wyoming Wildlife Consultants, LLC; Dr. Terry A. Messmer, Utah State University; Dr. Kerry P. Reese, University of Idaho, and Dr. James S. Sedinger, University of Nevada, Reno.⁵⁷ Atkins was asked to solicit well-qualified and independent reviewers with certain expertise and to ensure they had no financial or other conflicts with the outcome or implications of the COT Report.⁵⁸

However, Atkins failed to meet applicable peer-review standards due to conflicts and financial interests. FWS and USGS provided grant support to certain peer-reviewers as well as significant financial support for certain GRSG studies. Reviewers Holloran, Messmer and Reese received over \$10 million in federal financial support which seriously calls into question their ability to provide independent science to the agencies.⁵⁹ As recently as March 12, 2015, Reese, Beck, Holloran co-signed a letter to individual White House and DOI officials advocating for the most egregious regulatory restrictions in the NTT Report and virtually threatening an ESA listing if such measures were not adopted. Other signatories included COT member Connelly, NTT member Rinkes and Monograph authors Garton and Braun.

Dr. Kerry Reese, and Dr. John W. Connelly (an author of the COT Report and editor of the Monograph) published eight papers together, including two papers in 2012 and four in 2011. All of these were included in the Monograph. Dr. Reese participated in no fewer than eleven

⁵⁷ Scientific Peer Review of the Sage-Grouse Conservation Objectives Draft Report at 3.

⁵⁸ *Id.* at 2.

⁵⁹ Reese listed over \$6.3 million in funding and in-kind contributions, but failed to account for precisely how much can be attributable to sage-grouse.

presentations with Connelly, four with Gardner, another COT Report author, and four with Dr. Edward O. Garton. Garton et al. 2011 forms the very basis of the COT Report and is the most frequently cited paper therein. Dr. Reese received a \$255,203 grant from IDFG with Garton in 2011 and over \$1.3 million in sage-grouse funding including \$178,442 from the USGS (the funding agency on the Monograph).⁶⁰

Dr. Jeffrey L. Beck has two papers with COT member Connelly. Dr. Beck authored numerous papers with other frequently cited sage-grouse biologists including Naugle, an author of the NTT Report. No financial support is listed in the information received by the Alliance via FOIA, but given that Beck has published 12 papers on the topic, such support could be expected to be significant.

Dr. Matthew J. Holloran is one of the most cited papers in the COT Report. He authored a 2011 Monograph paper with Connelly, and another with Connelly and Knick. Dr. Holloran also authored three papers with Connelly in 2006, 2009, and 2012. Dr. Holloran's Ph.D. dissertation concluded "currently imposed [natural gas] developmental stipulations are inadequate to protect the greater sage-grouse, and that stipulations need to be modified to maintain populations within natural gas fields."⁶¹ Note the amount of financial support on six recent grants and contracts on sage-grouse totaled more than \$3.1 million. Funding sources were not listed. This indicates a bias by Dr. Holloran that calls into question his ability to perform an independent peer review. Holloran also coauthored a USGS Science Summary paper with Manier, Wood and Oyler-McCance of the USGS. Dr. Terry A. Messmer reported no authorship conflicts with COT Report team members; however, he listed financial support for some 18 recent grants and contracts on sage-grouse totaling more than \$2.3 million.

⁶⁰ Scientific Peer Review of the Sage-Grouse Conservation Objectives Draft Report, Appendix A.

⁶¹ Holloran 2005.

Dr. James S. Sedinger was an author with COT and NTT member Shawn Espinosa on a 2011 Monograph chapter and a 2010 paper. Grant and contract support includes \$40,000 on sage-grouse from BLM, and five grants and contracts totaling \$252,939 from FWS. These examples are all indicative of serious conflicts of interest.⁶²

3. Peer Review Failed to Undergo Public Comment

FWS failed to produce an administrative record for peer review as required by the DQA and the Guidelines. In reference to its peer review planning process requirements, DOI directs readers to links⁶³ to its agencies' websites. Notably, FWS peer review link contains absolutely no reference to peer review on the COT Report.⁶⁴ Further, DOI provides no evidence that it rigorously reviewed the COT Report as required. FWS certainly did not submit peer reviews on the COT Report to the public for review and comment.

Only upon commencement of FOIA litigation did FWS divulge the information requested relative to peer review of the COT Report. This information should have already been publically available.

4. Peer Review Was Not Transparent

The OMB Peer Review Bulletin⁶⁵ established government-wide guidance to improve the peer review of scientific documents, providing specific requirements for “influential scientific information” and “highly influential scientific assessments.” Agencies are to, “disclose the

⁶² Policy on Committee Composition and Balance and Conflicts of Interest for Committees Used in the Development of Reports (<http://nationalacademies.org/coi/>); OMB Peer Review Bulletin; Memorandum for the Heads of Executive Departments and Agencies (<http://www.whitehouse.gov/sites/default/files/microsites/ostp/scientific-integrity-memo-12172010.pdf>); Department Manual (“DM”) Part 305, Chapter 3 (<http://www.fws.gov/science/pdf/DOIScientificIntegrityPolicyManual.pdf>).

⁶³ It should be noted that the most recent Peer Review Report referenced by DOI in its link for “Information Quality and Peer Review Reports,” was from FY2010.

⁶⁴ http://www.fws.gov/mountain-prairie/science/peer_review.cfm

⁶⁵ 70 Fed. Reg. 2664 (Jan. 14, 2005).

names of the reviewers and their organizational affiliations in the report”⁶⁶ and mak[e] available to the public the written charge to the peer reviewers, the peer reviewers’ names, the peer reviewers’ report(s), and the agency’s response to the peer reviewers’ report(s).”⁶⁷ FWS failed to do so until the Alliance pursued FOIA litigation. Even then, FWS chose to provide only unattributed reviews in contravention of the DQA.⁶⁸ This is directly contrary to OMB Peer Review Bulletin and the DOI and FWS Guidelines.

5. Petitioners Have Made a Persuasive Showing that the COT Report Was Not Objective

OMB guidelines state that information will generally be presumed to be objective if data and analytic results have been subjected to formal, independent peer review; however, this presumption is rebuttable “based on a persuasive showing by a petitioner in a particular instance.”⁶⁹ The issue is what will be considered a “persuasive showing” that will overcome the presumption of objectivity under the proposed agency guidelines. An example of such a review is the process used by scientific journals.⁷⁰ However, even journal peer review does not necessarily equate to quality. As OMB has recognized, there are well-documented examples of flawed science published in respected journals.⁷¹ Accordingly, the presumption is rebuttable.⁷²

In this case, FWS has not met the applicable standards due to significant conflicts of interest and failure to adhere to DQA standards overcome such a presumption. FWS refused to even disclose information on peer review of the COT Report until forced to disclose via FOIA litigation. It solicited only unattributed reviews on the COT Report. Moreover, FWS failed to

⁶⁶ *Id.* (emphasis added).

⁶⁷ *Id.*

⁶⁸ Draft Scientific Peer Review of the COT Report at 3.

⁶⁹ 67 Fed. Reg. 8452, 8454 (Feb. 22, 2002).

⁷⁰ *Id.*

⁷¹ http://www.whitehouse.gov/omb/fedreg_reproducible

⁷² *Id.*

address several comments and issues raised by peer reviewers in the COT Report. *See* Exhibit A at 2-4.

F. The COT Report Was Not Based on the Best Available Science

The COT Report failed to meet DQA standards for the best available data. Agencies are directed⁷³ to adopt congressional standards of scientific integrity stemming from the Safe Drinking Water Act (“SDWA”).⁷⁴ Notably, the COT Report provides no original data or quantitative analyses. It fails to provide a comprehensive and unbiased review of *all* of the available scientific literature and perpetuates outdated information and beliefs.

Among other issues, the COT Report also places undue reliance on the database NatureServe for its ranking of threats. NatureServe comes with a glaring disclaimer:

“All documents and related graphics provided by this server and any other documents which are referenced by or linked to this server are provided "as is" without warranty as to the currentness, completeness, or accuracy of any specific data.”

As a result, outdated information and beliefs are perpetuated in the COT Report in violation of the DQA, the Guidelines and the additional authorities cited herein. *See* Exhibit A at 4; *see also e.g.* Exhibit B at 5 and 16.

The COT Report and the studies cited therein fail to meet the best available science standards. *See* Exhibit A at 1, and 5-6; *see also* Exhibit B at 10-12. The information disseminated fails to meet DQA standards for quality, objectivity, integrity and utility. Significant uncertainties are ignored and conjecture and opinion are presented as facts.⁷⁵

⁷³ OMB Guidelines V3.b.ii.B.ii.C.

⁷⁴ 42 U.S.C. § 300g-1(b)(3)(A).

⁷⁵ *Id.*

Executive Order 13562 also requires that regulations “must be based on the best available science” and in a way that imposes the least burden on society.⁷⁶ In this case, FWS cannot possibly justify the alleged benefits of measures recommended in the COT Report against the dramatic societal costs they would entail. FWS is directed to select approaches that impose the least burden on society and to identify alternatives to direct regulation. Here, FWS did not even attempt to do so. The onerous regulatory measures recommended in the COT Report are far from justified. In fact, they impose an incredible burden on the Petitioners and the public without scientific justification.

The COT Report and many of the studies upon which it relies have significantly flawed assumptions, questionable analytic models and questionable statistical procedures. *See* Exhibit A, *gen.*; *see also e.g.* Exhibit B at 1, 8, 10, and 19. Virtually all of the significant studies relied upon in the COT Report utilize models. *See* Exhibit B. *gen.* The COT Report relies extensively upon these models and even models built upon models to evaluate the alleged human footprint on sagebrush habitat and alleged GRSG population responses. *See* Exhibit B at 21-22. In contravening the Guidelines, FWS has not demonstrated to OMB that there is no other option than to use these third-party models. FWS has not demonstrated why it ignores actual population data available from state wildlife agencies.

Here, FWS has not identified several sources in the COT Report and has not disclosed the supporting data and models for the public to assess the objectivity of the Report. The models relied upon are quite complex. However, because the underlying data used in many of them has not been fully released nor provided to peer reviewers for independent analysis they are neither transparent nor reproducible. The peer reviewers, journal editors, or scientific and regulatory

⁷⁶ Executive Order 13563: *Improving Regulation and Regulatory Review*, <http://www.gpo.gov/fdsys/pkg/FR-2011-01-21/pdf/2011-1385.pdf>.

audience cannot independently evaluate the quality and potential biases in the data and studies. Accordingly, the studies relied upon fail to meet the DQA nor the Guidelines.

Moreover, the data have been collected by different people in different states using different standards and levels of effort--all of which have changed over time. The data are not properly curated and maintained in a central repository. Metadata to describe precisely how the data were collected, recorded and summarized along with quality and control assurances are undocumented. Key variables have not been released. Simply put, the raw data and methods that one could potentially use to reproduce the final data sets used in analyses are not available either because they are not released, undocumented, or may no longer exist.

Moreover, the models themselves often exhibit a complete lack of transparency and reproducibility. *See, e.g.*, Exhibit B at 10-12. What little background presented to the public regarding the models is presented in a confusing fashion with only vague references to the assumptions upon which it was based.

While federal agencies often use various models developed by third parties to formulate policies based upon influential scientific information, the DQA and the Guidelines require that influential scientific information be reproducible. This reproducibility standard generally requires that the models, data used to develop the models, and computer code used to develop such information be publicly available. In the rare instances in which the underlying data relevant to these studies has been disclosed, there are very serious data quality issues with the lek count data used. Recent efforts to develop range-wide conservation and mitigation objectives for the GRSG resulted in several documents proposing specific strategies or actions.

The COT Report proposed that the effectiveness of restoration activities must be demonstrated prior to receiving any credit for mitigating losses, and that the effectiveness must

be determined by GRSG use resulting in a positive population trend within the restored areas. *See Exhibit A at 1-2; see also Exhibit B at 27-31.* Although the counts of male GRSG on leks has been, and continues to be, the primary mechanism for collecting data about the relative abundance and population trends of GRSG, the COT Report does not acknowledge that lek counts provide only a crude, nonrandom, and statistically invalid estimates of population trends.⁷⁷

Even though there is little to no statistical confidence in existing male lek count data or how it is currently analyzed, the USFWS prepared the GRSG Range-Wide Mitigation Framework in 2014 and proposes that this information can be used as a starting point for evaluating the effectiveness of GRSG mitigation programs. However, FWS has not produced any data to demonstrate that the targets for GRSG populations and leks are achievable nor how the targets will allegedly enhance genetic connections, especially when the role of female grouse in the population monitoring is completely ignored. Without such scientifically defensible data and analyses, the COT Report does not withstand the standards of the DQA, the Guidelines or the additional authorities cited herein.

In addition, the majority of the underlying data, especially that collected before the late 1990s, is nearly worthless (as is some of the more recent data) due to undocumented methods, mixed methods, suspect values, satellite leks, incorrect datums, single counts, biased counts, and uncertainties that are not acknowledged. Not only are the data for these studies not public, but the methods used to arrive at the final data are not described with a level of detail that would allow them to be reproducible, rendering the entirety of the lek count data inoperative. FWS ignored these issues with Knick et al. 2013, Knick and Hanser 2011, Garton et al. 2011 and other

⁷⁷ Walsh et al. 2004; Ramey et al. 2014.

cited studies. Accordingly, the required robustness checks required are missing or inadequate. *See Exhibit A at 1-2, and 4-6; see also Exhibit B at 20-21.*

For all but a handful of studies, neither Petitioners nor the public have access to information that is integral to these studies and the models upon which they depend. For example, states within the range of the GRSG collect annual counts on GRSG leks. Integral to understanding the science of GRSG is the means upon which to count their populations and to predict potential trends. Agency biologists have cherry-picked lek count data from the states to form the basis of opinions memorialized in the key reports utilized by BLM, FWS and the U.S. Geological Survey (USGS). FWS cannot simply ignore data it does not like. For example, it fundamentally and erroneously assumes GRSG populations are in decline; and that declines in lek attendance equate to population declines, but this assumption is based on a selective use of available data.⁷⁸ It also concedes to a near-total lack of knowledge on how GRSG respond to anthropogenic disturbance, yet proposes multitudes of unfounded regulatory restrictions to address them. *See Exhibit B at 7, and 13.* The modeling efforts within these studies form the backbone of the federal, top-down and one-size-fits approach being imposed through Land Use Plan Amendments.

Not only are the data for these studies not public, but the methods used to arrive at the final data are not described with a level of detail that would allow them to be reproducible, rendering the entirety of the lek count data inoperative. Without the underlying data, these reports are neither transparent nor reproducible.

H. Bias and Lack of Objectivity in the COT Report

The COT Report failed to meet DQA standards for quality and integrity. It is biased by the use of policy-driven assumptions, inferences, and uncertainties that are not supported by

⁷⁸ *See Ramey, Thorley and Ivey 2014.*

scientific data. The COT Report inadequately treats uncertainties through presumptive interpretations of data, inaccurate portrayal of threats and differential treatment of environmental factors, ie in treatment of renewable energy versus fossil fuels. For example, it fundamentally and erroneously assumes GRSG populations are in decline; and that declines in lek attendance equate to population declines.⁷⁹

The COT Report is not presented in an accurate, clear, complete and unbiased manner.⁸⁰ See Exhibit A at 1-2, 5, and 8; see also Exhibit B at 1, 3-4, 8, 14, 16-17, 24, and 28. For example, the modeling and assumptions in studies cited fail to meet the standards of the DQA, the Guidelines or the additional authorities cited herein. See Exhibits A, B and C, *gen*.

More than one reviewer cited real uncertainties regarding management and potential impacts on GRSG populations. In fact, "...the majority of the reviewers found that the report fell short of meeting its stated goals in several important areas, and they identified opportunities to better achieve those goals and improve its utility for decision making...."⁸¹ Reviewers identified an astonishing lack of reference to at least 15 relevant scientific papers.⁸²

Fundamentally, the COT Report did not meet its stated objectives with regard to the degree to which threats need to be ameliorated.⁸³ Risk levels may need to be reconsidered and there was doubt expressed that threat ratings were credible.⁸⁴ One reviewer noted that it was questionable how scientific sources were used to establish risks and that there were limited (if any) direct relationships between habitat characteristics and population change.⁸⁵ For example, the COT Report cited Knick *et al.* 2003; Connelly *et al.* 2011a for the proposition that large

⁷⁹ See Ramey, Thorley and Ivey 2014.

⁸⁰ See OMB Guidelines V(3)(a).

⁸¹ Scientific Peer Review of the Sage-Grouse Conservation Objectives Draft Report at 3.

⁸² *Id.* at 7.

⁸³ *Id.* at 5.

⁸⁴ *Id.* at B-16.

⁸⁵ *Id.* at 7.

seasonal and annual movements emphasize the need for large, functional landscapes to support viable populations.⁸⁶ These citations are misplaced.

Knick et al. 2003 was cited an astonishing 14 times in the COT Report. The very title of this piece evidences extreme bias, “Teetering on the edge or too late?....” In addition, the authors complain about a lack of political agenda and advocate that public lands be “Protect[ed] from economic use.” Moreover, Knick et al. 2003 is not supported by data and relies on the invalid assumption that GRSG cannot bypass unsuitable or fragmented habitat during seasonal movements. *See* Exhibit B at 14-15. Connelly et al. 2011 is fraught with similar errors of omission and inaccuracies.

Reviewer 2’s comments indicate a bias in favor of listing and his belief that existing regulatory mechanisms are inadequate for sage-grouse. Reviewer 2 complained that they were not required to review how conservation objectives would be met, “I assume that another group at another time in another forum will do this, otherwise the species will remain in peril.”⁸⁷ He further stated, “COT should be urging for enhanced, improved and additional management actions because the “continued” is not adequate as is across most of the species range.”⁸⁸ Reviewer 2 praised Garton, along with “limited” scientific references and expert opinion as the “strongest part” of the COT Report.⁸⁹ This raises the question of whether Reviewer 2 was one of the reviewers that has worked very closely with Garton.

Some terms, like fragmentation, were not well defined.⁹⁰ Resistance and resilience were never quantified causing some to label them redundant, of little use, and little substance.⁹¹

⁸⁶ COT Report at 8-9.

⁸⁷ Scientific Peer Review of the Sage-Grouse Conservation Objectives Draft Report at B-16.

⁸⁸ *Id.* at B-17.

⁸⁹ *Id.* at B-19.

⁹⁰ *Id.* at 5.

⁹¹ *Id.* at 4.

Reviewers also cited generalities, uncertainties, and questions regarding whether some recommendations were feasible or practicable.

Reviewer 1 admonished the COT Report to acknowledge that we truly do not know the magnitude of population declines of GRSG.⁹² Some concepts were ambiguously defined and not enough information was provided to assess threat ranking.⁹³ A lack of transparency in the threats analysis was a common theme. Reviewer 3 could not even replicate the results of the analysis (Table 2) with the information provided.⁹⁴ This evidences failure to meet the transparency and reproducibility requirements of the DQA, the Guidelines and the additional authorities cited herein.

The COT Report ignored evidence that GRSG may adapt to a disturbed environment. For example, highly naturally fragmented habitats have GRSG persistence. Some reviewers commented that genetics-based connectivity was over-emphasized and should be considered a much lower priority.⁹⁵ One reviewer commented that the COT Report failed to take into account that effects of infrastructure may be more related to the level of disturbance relative to habitat quality rather than mere presence.⁹⁶ The COT Report did not analyze how, if threats are addressed, population persistence may be altered.⁹⁷ Incredibly, Reviewer 3 recognized the COT Report could not acknowledge what effective habitat management was. He also noted the COT Report failed to address the effectiveness of existing regulatory measures. Reviewer 3 remarked, “[I]n my opinion it is a mistake to focus on managing anthropogenic activities at the expense of researching and implementing actions to improve the quality of sagebrush ecosystems.”⁹⁸

⁹² *Id.* at B-4.

⁹³ *Id.* at B-23.

⁹⁴ *Id.* at B-23.

⁹⁵ *Id.* at B-27.

⁹⁶ *Id.* at B-7.

⁹⁷ *Id.* at B-9.

⁹⁸ *Id.* at B-21.

The COT Report discounts established strategies to protect the “best of the best” habitat along with many of the significant conservation efforts currently utilized by the states. Reviewer 1 stated the COT Report should be seen as a tool rather than an absolute.⁹⁹ He also noted that management actions were largely at the purview of the states.¹⁰⁰

The COT Report does not recognize the latest state and local habitat mapping efforts (such as that employed by Garfield County, Colorado). For example, some areas defined as habitat in the COT Report do not exist. Reviewer 1 explained the COT Report also ignored that tribal lands provide and protect significant habitat for GRS in Utah.¹⁰¹ Reviewer 2 noted several priority areas seem to have been labeled in an inconsistent manner.¹⁰² Descriptions of seasonable habitat were also lacking.

Reviewer 4 questioned how the footprint of renewable energy development might differ from nonrenewable energy development¹⁰³ and that statements in the COT Report about predation were speculative with no empirical basis.¹⁰⁴ Reviewer 4 pointed out that direct relationships between specific habitat characteristics and population change are limited, if not lacking entirely.¹⁰⁵ The COT Report fails to capture an understanding of effects on GRS from most of the potential risks referenced. “We have a poor empirical basis for understanding most potential impacts on sage-grouse,” said Reviewer 4.¹⁰⁶ He continued, “[T]his severely limits our ability to predict the response of sage-grouse populations to changes in their habitats.”¹⁰⁷

⁹⁹ *Id.* at B-3.

¹⁰⁰ *Id.* at B-3.

¹⁰¹ *Id.* at B-7.

¹⁰² *Id.* at B-15.

¹⁰³ *Id.* at B-28.

¹⁰⁴ The COT Report suggests the best way to mitigate predation is to maintain quality habitat with good connectivity.

¹⁰⁵ Scientific Peer Review of the Sage-Grouse Conservation Objectives Draft Report at B-26.

¹⁰⁶ *Id.* at B-27.

¹⁰⁷ *Id.* at B-29.

Similarly, Reviewer 5 remarked that conclusions in the threats analysis were based upon findings stemming from professional opinion.¹⁰⁸

FWS clearly failed to address these fundamental shortcomings with the COT Report and failed to adequately explain assumptions, limitations and bias in the information disseminated. *See Exhibits A and B, gen.* Accordingly, the COT Report falls short of the DQA, the Guidelines and the OMB Peer Review Bulletin. It also contradicts FWS's own policy on peer review.¹⁰⁹

DOI commits that its bureaus shall adapt the SDWA science standards.¹¹⁰ FWS incorporates these standards in regards to analysis of risks to human health, safety and the environment.¹¹¹ Given the COT Report's purpose, the "best available" standard clearly applies. Here, FWS has sought only selective input in a way that likely violates FACA as well as the DQA and its Guidelines.

I. Unfounded Restrictions on Human Activities

Despite the lack of scientific support, the COT Report proscribes land management actions such as: prevent fire in GRS habitat; manage for sagebrush; manage land uses; improve grazing "systems," and close rangelands that are highly susceptible to fire to OHV use during the fire season.¹¹² In clear violation of the DQA, the Guidelines and the additional authorities referenced herein, FWS would have these measures implemented without any tracking and testing of the effectiveness of the multitudes of currently required conservation efforts.

The COT Report concedes to a near-total lack of knowledge on how GRS respond to anthropogenic disturbance, yet proposes multitudes of unfounded regulatory restrictions to

¹⁰⁸ *Id.* at B-33.

¹⁰⁹ <http://www.nmfs.noaa.gov/pr/pdfs/fr/fr59-34270.pdf>.

¹¹⁰ DOI Guidelines VII.3.b.

¹¹¹ FWS Guidelines IV-3.

¹¹² COT Report at 41.

address them. The proposed restrictions in the COT Report are based upon the opinions of authors and selective citation of information rather than data. *See Exhibit A, gen.; see also Exhibit B at 5-10, 12, 15-16, 19, 24-25, and 29-30.* FWS cannot rely on the biased opinions and selective presentation of information to support a recommendation that is unsupported by data. Moreover, the COT Report presented no scientific data that these proposed restrictions are: (1) scientifically defensible; (2) achievable; (3) would result in stable GRSG populations; (4) would not result in irreparable harm to other species; and (5) would not unnecessarily have a negative effect on local economies. *See Exhibits A and B, gen.*

FWS has not utilized accepted methods or best available science along with sound and objective scientific practices in the COT Report. Rather, the COT Report represents a partial presentation of scientific information to justify a narrow range of preferred conservation measures and policies. For example, with little credible support the COT mandates, “no new development of infrastructure corridors within PACs.”¹¹³ Even designated but not yet built infrastructure corridors would be re-located outside of PACs unless they will have “no impacts” or positive impacts on GRSG populations.¹¹⁴ Significant flaws in the COT Report include mandates with respect to habitat requirements and threshold values, issues of scale and failure to adequately recognize and incorporate existing regulatory and conservation efforts.¹¹⁵

The COT Report claims that it, “delineates reasonable objectives, based upon the best scientific and commercial data available at the time of its release....”¹¹⁶ However, the COT Report objectives are neither reasonable nor based on the best science available. Further, the research that ostensibly supports onerous restrictions on human activities do not actually provide

¹¹³ COT Report at 51.

¹¹⁴ *Id.*

¹¹⁵ *See* COT Report at 11.

¹¹⁶ COT Report at ii.

the justification claimed by the COT Report, or are mis-cited as supporting those prescriptions..¹¹⁷

1. Standards for Sagebrush Canopies are Unsupported

The COT Report alleges little sagebrush within the range of the GRSG remains undisturbed (citing primarily Knick et al. 2003) and goes on, without citation or support, to state disturbed or altered habitats have “less resilience than intact habitats.”¹¹⁸ Serious issues with Knick et al. 2003 are discussed in Exhibit B at 14-15.

Two of the most frequently used sources with respect to vegetative habitat requirements, provide that “adequate” vegetative cover for sage-grouse ranges from 15% to 25% sagebrush cover with greater than 10% forbs and greater than 10% grass canopy, and even smaller percentages depending on the season or ecological location (Connelly et. al. 2000, Hagen et. al. 2007). However, these objectives are not supported by the literature. *See* Exhibit B at 8-9. Absent from these studies are data to support the COT Report’s conclusion that 70% of the range within priority habitat must provide “adequate” habitat in order for sage-grouse to persist. Limiting disturbance to less than 30% of the *total* habitat is not scientifically supported, nor is it reasonable to assume this limit is even possible.

While FWS concedes there is little information available regarding minimum sagebrush patch size required to support populations of sage-grouse, it goes on to recommend needless one-size-fits all regulations based upon this suspect or faulty bases.¹¹⁹ The best available scientific research has refuted the belief that there is a widely-accepted or “magic” number, in terms of

¹¹⁷ Applegate and Owens 2014; *see also* Ramey et al. 2011.

¹¹⁸ COT Report at 9.

¹¹⁹ *See* COT Report at 8.

habitat patch size or population number, that can defensibly be used to identify a “viable” population of any species, much less GRSG.¹²⁰

For example, recommendations for management of priority habitat were made without any definition or quantification of priority habitat themselves. The COT Report presents no data showing that hypothetical migration and connectivity corridors actually exist or that 70% sagebrush cover in Priority Habitat is: 1) scientifically defensible, 2) achievable, 3) would result in stable sage grouse populations, and 4) would not result in irreparable harm to other species, and 5) would not negatively affect local economies.

Connelly et al. 2000 does not support the proposition cited in the COT Report. Connelly et al. 2000 states that land treatments should not be based on schedules, targets, and quotas.¹²¹ And reliance on Knick is misplaced. While FWS concedes sagebrush is the most widespread vegetation in the intermountain lowlands of the western United States (citing West and Young 2000); it mischaracterizes it as “one of the most imperiled ecosystems in North America due to continued degradation and lack of protection.”¹²² Knick et al. 2003 cannot be relied upon for such an allegation because this paper lacks any useful scientific findings and seems basically a biased call to arms for environmental groups. For example, the authors complain about a lack of political agenda and advocate that public lands be “Protect[ed] from economic use.” *See* Exhibit B at 14-15. There is no hypothesis testing, and no real data presented in Knick et al. 2003.¹²³

The COT Report improperly alleges with no citation to any scientific authority that the intentional removal or treatment of sagebrush using prescribed fire, or any mechanical and chemical tools contributes to habitat loss and fragmentation which are a primary factor in the

¹²⁰ Flather et al. 2011; Hubbell and Hubbell 2011; Ramey et al. 2014.

¹²¹ Connelly et al. 2000.

¹²² COT Report at 8.

¹²³ *Id* at 17.

[alleged] decline of GRSG populations.¹²⁴ To assert that habitat is a substantial limiting factor to sage grouse is questionable at best. Rather, the COT Report should recognize the quality of the habitat and the very real impact of predation, hunting and competition from other species on GRSG populations.

FWS must incorporate and rely upon the most recent information for the COT Report. The COT Report recommendations rely on older research that fails DQA standards and fails to qualify as the best available science. The COT Report acknowledged only three real uncertainties with regard to GRSG conservation:

1. The lack of robust, range-wide genetics-based connectivity analyses
2. The ability to successfully restore lower-elevation and weed-infested habitats (citing Knick *et al.* 2003 and Pyke 2011)
3. The effect of climate change on the amount and distribution of future habitat.¹²⁵

Incredibly, in light of these uncertainties, its recommendations were unequivocal:

“impacts to sage-grouse and their habitats should be avoided to the maximum extent possible....”

Somehow, FWS equates this ubiquitous proscription to “management flexibility.”¹²⁶ Similarly, in regard to allegations of climate change, the COT Report went on to direct land use agencies to incorporate its potential impacts into their planning efforts.¹²⁷

Accordingly, the information disseminated in the COT Report does not meet DQA standards for objectivity and integrity and must therefore be retracted or corrected. Moreover, by acting on flawed measures in the COT Report, FWS has committed itself to an action before making a final decision. This could be construed as pre-decisional and an irreversible,

¹²⁴ COT Report at 44.

¹²⁵ COT Report at 31.

¹²⁶ *Id.*

¹²⁷ *Id.* at 39.

irretrievable commitment of resources contrary to the National Environmental Policy Act (NEPA).¹²⁸

For all the reasons herein, FWS must retract or reject the proposed restrictions in the COT Report in favor of a more realistic approach that deals with the specific cause and effect mechanisms that underlay demonstrable threats to GRSG in each local population.

2. Misrepresenting the Impact of Oil and Natural Gas Operations

The COT Report omits numerous scientific papers and reports on oil and gas mitigation measures, mitigation of raven predation, and the fact that GRSG traverse (fly) over or around roads, agricultural areas, and oil and gas development.¹²⁹ While the COT acknowledged GRSG, “dispersal (permanent moves to other areas) is poorly understood and appears to be sporadic,”¹³⁰ it omits reference to the best science that indicates GRSG disperse over much greater distances than previously thought. *See* Exhibit B at 11, 14-15, 21, and 26.

Key assertions in the COT Report are both biased and in error, especially the frequently repeated, but erroneous assumption, that a temporary decrease in lek counts caused by nearby development equates to a population decline.¹³¹ The COT Report mistakenly presumes, “[A]dult sage-grouse rarely switch from these habitats once they have been selected, limiting their ability to respond to changes in their local environments (Schroeder *et al.* 1999).”¹³²

With no credible scientific support (nor any citation) the COT Report blindly states that development results in GRSG population declines.¹³³ The COT Report does cite Walker *et al.* 2007 for the mistaken proposition that GRSG populations can be significantly reduced, and in

¹²⁸ *See* 40 C.F.R. § 1502.2(g).

¹²⁹ Kehmeier *et al.* 2014.

¹³⁰ COT Report at 8 (emphasis added).

¹³¹ COT Report at 43.

¹³² COT Report at 6.

¹³³ COT Report at 43.

some cases locally extirpated, by non-renewable energy development activities, even when mitigation is implemented.¹³⁴ But reliance on Walker et al. 2007 is untenable. *See* Exhibit B at 30. Further, this evidences bias against non-renewable energy: GRSG do not distinguish between activities from one type of energy versus another. The COT Report failed to mention methodological problems with the study or the fact that the author did not report a population-level decline in GRSG rather than a localized effect on rates of male lek attendance near disturbances.¹³⁵

FWS describes energy development as one of the greatest threats to GRSG. Naugle and Copeland 2011, Naugle and Doherty 2011, and other studies cited grossly exaggerate the potential impacts of energy development despite the findings that there is little overlap between energy development and GRSG habitat.¹³⁶ *E.g.* Exhibit B at 24-26. Other examples, Garton et al. 2011 and Knick and Hanser 2011, erroneously claimed populations in the Colorado Plateau have a 96% chance of declining below 200 males by 2037 due primarily to threats from oil and gas.

While surface disturbance from oil and natural gas had local negative effects on male sage grouse lek attendance, it did not result in significant effects at a population level.¹³⁷ In Pinedale, predictions of population level declines have failed to come true.¹³⁸ Data show GRSG population increases despite intensive energy development that has occurred in Jonah, Labarge, and Pinedale Anticline within four miles of active leks.¹³⁹ The Pacific Decadal Oscillation (“PDO”) a climate index derived from sea surface temperatures in the North Pacific accounted

¹³⁴ COT Report at 10.

¹³⁵ *Id.*

¹³⁶ *See* <http://blogs.scientificamerican.com/extinction-countdown/2014/10/17/sage-grouse-oil-drilling/>.

¹³⁷ Ramey et al. 2014.

¹³⁸ Ramey and Ivey 2014.

¹³⁹ Ramey et al. 2014; *See also* Wyoming Game and Fish Department, *Wyoming Sage-Grouse Population Lek Count Data* (2013); Wyoming Oil and Gas Conservation Commission *Well Data*; Disturbance Data from PAPO, JDMIS, and PDMIS databases.

for 78% of population variations in Pinedale and 67% in Wyoming GRSG working groups.¹⁴⁰ If the primary climate drivers of GRSG populations are not taken into account, as they are not in the COT Report, then management prescriptions will be based on erroneous information and doomed to failure. The publicly available lek count data from states show that GRSG population cycles have *not* been lost. Instead, lek counts, even in areas of oil and natural gas development, show a pattern of synchronous cycling (Wyoming Game and Fish 2012).

The COT Report misrepresents Naugle et al. 2011a and Doherty et al. 2008 to allege that habitat fragmentation results in a total loss of winter habitat. In reality, these studies only demonstrate that GRSG avoid densely developed Coalbed Methane (CBM) fields, and should not be erroneously applied across all oil and natural gas producing areas.¹⁴¹

While conceding there is little published research on the topic, FWS describes energy development as one of the greatest threats to GRSG. As one example, Knick and Hanser 2011 (Knick and Hanser were cited eighttimes in the COT Report, six times in the NTT Report and 38 times in the 2010 GRSG listing decision) claim populations in the Colorado Plateau have a 96% chance of declining below 200 males by 2037 due primarily to threats from oil and gas. Such assertions are without basis given the status of GRSG populations today.¹⁴² Reliance on Connelly et al. (2004) and Garton et al. (2011) is particularly misplaced. *See* Exhibit A at 2; *see also* Exhibit B at 7-10.

Reliance on Garton 2009, pers. comm., is also misplaced. FWS has stated, “[P]opulation stability may also be compromised if cycles in sage-grouse populations are lost, which current analyses suggest, minimizing the opportunities for population recovery if habitat were available

¹⁴⁰ Ramey et al. 2014.

¹⁴¹ *See* Ramey, Brown and Blackgoat 2011, Applegate and Owens 2014 and Kirol et al 2015, etc.

¹⁴² *See* Zink 2014; Ramey et al. 2014.

(Garton 2009, pers. comm.).”¹⁴³ This suggests GRSG populations have been lost and that this loss can compromise population stability. However, there are no data or analyses to support these statements.

Garton et al. 2011 was cited 62 times in the 2010 WBP decision. However, Garton et al. 2009, 2011 did not include any analysis of population cycles, or their potential drivers, into their population reconstructions, statistical analyses, or population persistence models. *See* Exhibit D, Peer Review and Information Quality Breakdown. Nor did Garton (2009, 2011) analyze the potential effects of oil and gas development on GRSG population trends. In fact, Petitioners are aware of no published studies that have shown that oil and gas development has affected GRSG population cycles. FWS may not rely upon Garton 2009, pers. comm. or Garton et al. 2011 without violating the DQA, the Guidelines and the additional authorities cited herein.

Reliance on studies such as Connelly et al. 2004, Garton et al. 2011 and Taylor et al. 2012 to analyze the lek count data is also misplaced. Table 2 in the COT Report (threats) are based entirely on Garton et al. 2011.¹⁴⁴ As discussed herein, Garton et al. 2011 has been thoroughly discredited. *See* Exhibit A at 2; Exhibit B at 7; Exhibit D. This threats analysis was alleged based upon, “known occurrence of threats, existing management strategies, and professional experience.”¹⁴⁵

Garton et al. 2011 and Taylor et al. 2012 were modeling exercises based upon lek count data. Estimates derived from those data have extremely large errors and low statistical confidence. For example, Garton et al. 2011 had extremely low resolution. *See* Exhibit D. This indicates that the models, on average, did not explain 75% of the variation in the data sets.

¹⁴³ The cited personal communication is listed in the Literature Cited for the 2010 listing decision as: “[T]elephone interview. Dr. Oz Garton, Professor, University of Idaho, in Moscow, ID (December 18, 2009).”

¹⁴⁴ COT Report at 16.

¹⁴⁵ COT Report at 14 (emphasis added).

Adding to this error, neither Garton et al. 2011 nor Taylor et al. 2012 accounted for the effect of documented population fluctuations as a result of climatic fluctuations (i.e. Wyoming Game and Fish 2012b; Blomberg 2012; Ramey et al. 2014) on their trend estimates. Taylor et al. (2012) used data from 2003 to 2009, a period of population fluctuation that peaked in 2006 and then declined (a fact not mentioned by the author nor acknowledged by the COT Report). Taylor et al. 2012 also contains a number of overstatements and omissions,

"[F]indings reflect the status of a small remaining sage-grouse population that has already experienced an 82% decline within the expansive energy fields (Walker et al. 2007a), a level of impact that has severely reduced options for delineating core areas that are large enough and in high enough quality habitats to sustain populations."

While this statement is dramatic, the reality of the situation is quite different.¹⁴⁶

In addition, Walker et al. 2007 had confidence intervals so large that they are effectively meaningless (i.e., a rate of increase in coal bed methane fields of 0.65 with a 95% confidence interval between 0.34 and 1.25, as 34 to 125% annual increase). Walker fails to acknowledge that lek counts declined from 2001 through 2004 but rebounded in 2005.¹⁴⁷

None of the cited studies were representative of the Great Basin birds. The study area used by Aldridge and Boyce 2007¹⁴⁸ is not representative of GRSG range-wide. Moreover, the Alberta population is small and has minimal suitable habitat available as a result of ecology and geologic formations. Therefore, any impact on this population will appear heightened compared to what may happen to other, more robust populations.

The COT Report's treatment of noise and oil and natural gas operations violates the DQA and the Guidelines. Recommendations were based on the subjective opinions of the authors of

¹⁴⁶ See Ramey, Thorley and Ivey 2014.

¹⁴⁷ Wyoming Game and Fish 2012b.

¹⁴⁸ Interestingly, the data in Aldridge and Boyce 2007 suggest the majority of the late brood rearing habitat is already on land that is regulated by BLM.

cited studies rather than data. *See* Exhibit A at 5-8; *see also* Exhibit B at 2-4. The cited studies, all performed by one research group, used substandard equipment and employed methods that were inconsistent with professional data collection and reporting standards in the industry that are used to ensure unbiased and systematic data collection. The underlying data in the cited noise studies is not public and not reproducible. What is being proposed for noise thresholds is an impossible standard to achieve found in an idyllic wilderness setting; and described with non-standard equipment and unaccepted techniques.

These studies do not support the proposition for which they are cited. They do not report population-level effects to GRSG. Rather, temporary avoidance was observed under very specific circumstances with no evidence of deleterious effects on fitness. *See* Exhibits A and B, *gen.* Moreover, the authors, and the COT Report, fail to examine whether noise could have positive effects on GRSG—such as interference with predation or whether daily motorized trips to noise monitoring stations to replace batteries may have interfered with test results.

Here, the most recent science indicates GRSG use greater variances in habitat (Reinhart et al. 2013) and that noise tolerances and habitat selection in areas of high road density are greater than previously documented.¹⁴⁹ Moreover, topographic roughness appeared to be a much stronger indicator of habitat avoidance than anthropogenic disturbances.¹⁵⁰

The COT Report's treatment of noise is completely inconsistent with the previous background of 39 dBA background plus the 10 decibel threshold. This overly restrictive threshold is based on a questionable study referenced directly in the COT Report and will be difficult, if not impossible to achieve. There is no peer reviewed data that supports a background

¹⁴⁹ Patricelli et al. (2012).

¹⁵⁰ *Id.*

at dawn for a 20-24 background level. FWS needs to replace these flawed recommendations with the 39 dBA which is currently in use when assessing noise considerations in GRSG habitat.

The COT Report also failed to acknowledge lower impact technologies and mitigation currently in use by the oil and gas industry, including specifically those detailed in Ramey, Brown, and Blackgoat 2011 and Applegate and Owens 2014. In fact, the COT would impede the use of this new technology by limiting activities including year-round oil and gas development and its associated benefits such as reduced truck traffic, reduced emissions, and phased development.

Frequently cited studies in the COT Report regarding energy infrastructure and disturbance on GRSG are outdated. Kirol et al. 2015, Ramey, Brown and Blackgoat 2011, and Applegate and Owens 2014, have demonstrated technological advances and mitigative methodologies help to minimize impacts to GRSG. In addition, all of the cited studies in the COT Report were conducted in heavily developed energy fields which did not utilize today's technology. Thus, the studies represent a small fraction of the range of GRSG only in heavily developed energy fields in Wyoming and Alberta.

The COT Report cites Doherty et al. 2010 for the proposition that energy development should be avoided in priority areas of conservation ("PACs") and Blickley et al. 2012 for the proposition that development should minimize use of tall structures.¹⁵¹ But reliance on these studies is also misplaced as they are not supported by hard data. *See* Exhibit A at 6-9.

While avoidance might occur due to heavily developed oil and gas fields, the intensive down-hole development of yesteryear at Pinedale is not representative of a typical field today. Notably, many of these areas developed prior to widespread use of directional drilling and clustered development. Accordingly, impacts from oil and gas development today are likely to

¹⁵¹ COT Report at 43.

be even smaller. Further, Pinedale GRSG populations have not reacted as these authors predicted.¹⁵²

Other errors of omission in the COT Report include numerous scientific papers and reports on oil and gas and mitigation measures. *See* Exhibit B at 18-20. The COT Report fails to acknowledge that this situation has substantially changed due to the advent of advanced reclamation, methods to limit surface disturbance, and other protective measures that are now mainstream in development that takes place in habitat areas. For example, a study prepared by SWCA Environmental Consultants catalogued an astonishing 773 conservation measures and an average of 6.5 Conditions of Approval (COA) or conservation measures to protect GRSG per project.¹⁵³

Oil and natural gas development and mining activities are by nature temporary disturbances. The highest level of surface disturbance associated with development occurs during the construction drilling and completion phases, which can last from a few weeks to a few months. Once production is achieved, the surface disturbance that results from these activities shrinks dramatically and long-term disturbances represent only a small fraction of the initial disturbance.

3. Mining

Similarly, in regards to mining, the COT Report claims (with no citations nor support) that facilities within GRSG habitat result in the direct loss of habitat, habitat fragmentation, and indirect impacts from disturbance and that current reclamation activities do not always consider GRSG habitat needs and might take decades to restore.¹⁵⁴ Similarly, with no citation

¹⁵² *See* Ramey et al. 2014; *see also* WY Fish and Game population summaries.

¹⁵³ *See Id.* at page 5; *see also* List of NEPA Documents Reviewed beginning at 35.

¹⁵⁴ COT Report at 49.

whatsoever, FWS claims that climate change could expand the importance of fire and invasive plans.¹⁵⁵

These bald assertions fail to meet the DQA, the Guidelines or the additional authorities cited herein. Other alleged threats cited with no citations nor authority include recreational activities, ex-urban development,¹⁵⁶ and development of infrastructure “for any purpose” results in habitat loss, fragmentation, and may cause GRSG habitat avoidance.¹⁵⁷

For all of these reasons, FWS has not adequately addressed these significant issues in the COT Report in contravention of the DQA, the Guidelines and the additional authorities cited herein.

IV. The COT Report Misrepresents Several Key Issues

A. Robust GRSG Populations

There are many errors in the COT Report’s approach to GRSG populations. For example, FWS has not produced any data to demonstrate that its targets for GRSG populations and leks are achievable or how the targets will allegedly enhance genetic connections, especially when the role of female grouse in the population monitoring is completely ignored. In addition, Ramey et al. 2013 detected several errors in the calculations of the seminal study cited in the COT Report (Garton et al. 2011) that dramatically skew probabilities to estimated declines over time.

There is no evidence of the purported population declines nor genetic isolation that FWS contends. In his recently published study (Zink 2014), Dr. Robert Zink found no genetic evidence of population declines in GRSG.

¹⁵⁵ *Id.* at 10.

¹⁵⁶ *Id.* at 49-50.

¹⁵⁷ *Id.* at 51.

Zink “compare[d] genetic variability measures with quantitative estimates of population trends to determine whether the effects of population declines can be observed at two geographic scales in the microsatellite and mitochondrial DNA data...” Populations in decline should show reduced genetic diversity with corresponding risks to population persistence. But for GRSG, “the expected population genetic signatures of differences in population size were not observed.” Dr. Zink concluded, “[T]here is no clear evidence that the population genetic variability of the greater sage-grouse has been influenced by range reduction and fragmentation” and that “there is no evidence of heightened inbreeding in smaller populations.”

For example, in Utah, the number of leks counted has increased from a low of 125 to 361 currently.¹⁵⁸ In regards to males counted, the increase is even more dramatic: 1,555 males in 1996 to 5,973 in 2006 (280%).¹⁵⁹ While current numbers are not quite that high, differences in methodologies and inaccuracies inherent in lek counts must be considered. BLM also acknowledges in its Land Use Plan Amendments that, “GRSG in Colorado have been increasing for about the last 17 years, and breeding populations have not declined for the last 39 years,”¹⁶⁰ and that sagebrush habitat in Jackson County (which harbors the second largest population in the planning area) is, “largely intact, and there is little threat of fragmentation.”¹⁶¹ And data from the Nevada Department of Wildlife (“NDOW”) indicates GRSG populations have been increasing over the last three years. According to NDOW, the 2010 fall population estimate increased about 18% compared to the 2009 estimate, and the population has been increasing since 2008.

It should be noted that FWS and USGS convened a closed-door workshop on October 22-23, 2014 in Ft. Collins, Colorado entitled “Expert Elicitation Workshop on the Genetics of

¹⁵⁸ Utah GRSG DEIS 3.2.1 at 3-8.

¹⁵⁹ *Id.*

¹⁶⁰ *See* Northwest Colorado GRSG DEIS at 253 *citing* Figure 3-5.

¹⁶¹ *Id.* at 246.

Greater-Sage Grouse” (the “Workshop”). The aim of the Workshop was ostensibly to work on “specific technical questions.” The way in which the agencies convened this Workshop also drew sharp rebukes and calls for transparency from 18 Members of Congress in an October 16, 2014 letter to Interior Secretary Sally Jewell.¹⁶² Petitioners believe the way the Workshop was convened and conducted likely violates FACA, the DQA and its Guidelines as well as presidential memoranda and DOI orders on scientific integrity and transparency. We caution FWS not to adopt or incorporate any alleged findings from this closed-door Workshop.

The COT Report fails to acknowledge that the size of GRSG populations sufficiently negates threats. FWS has estimated the GRSG population to be 535, 542.¹⁶³ Many species have been delisted or removed from candidate status with far less significant population numbers and ranges, such as:

- FWS withdrew the black-tailed prairie dog (“BTPD”) from candidate status despite significant variations in certain populations. In the 12-month finding for the BTPD, FWS noted that urbanization represents a locally substantial loss of occupied habitat, but in a range-wide context, it is not significant. FWS further stated, given population estimates in Colorado and elsewhere, urbanization cannot be considered a threat at present or in the foreseeable future, either in Colorado or range-wide, despite the fact that “considerable effects due to this factor have occurred in the past.”¹⁶⁴
- FWS removed the peregrine falcon from the list of endangered and threatened species with only 1,650 peregrine breeding pairs in the United States and Canada.¹⁶⁵
- FWS withdrew its proposal to list the mountain plover where the current total population of mountain plovers was estimated to be between 5,000 and 11,000 individuals.¹⁶⁶
- Due to the size of the current Aleutian Canada goose population (37,000 individuals) and the management practices on currently used goose habitats, FWS found that potential threats such as development, variable market conditions, changing agricultural practices, and adverse climactic conditions did not threaten the continued survival of the species. FWS stated it believed that the size of the population was such that it would have time to

¹⁶² <http://naturalresources.house.gov/news/documentsingle.aspx?DocumentID=397887>

¹⁶³ 75 Fed. Reg. 13910, 13921 (Mar. 23, 2010).

¹⁶⁴ 69 Fed. Reg. 51217 (Aug. 18, 2004).

¹⁶⁵ Press Release, FWS, *The Peregrine Falcon is Back!*, (Aug. 20, 1999).

¹⁶⁶ 68 Fed. Reg. 53083 (Sept. 9, 2003); *see also* Press Release, *FWS Withdraws Proposal to List the Mountain Plover as a Threatened Species*, (Sept. 8, 2003).

intervene on behalf of the subspecies should any of these become threats to the continued survival of the subspecies.¹⁶⁷

- In its 2014 Candidate Notice of Review, FWS lowered its listing priority number for Sprague's pipit due to its large population size.¹⁶⁸

Perhaps never before has FWS considered listing a species so numerous and wide-ranging as GRSG. As noted above, there is ample precedent not to embark on the proposed regulatory restrictions, let alone a federal listing, when population numbers are robust, as they are for GRSG. Such actions are unlikely to benefit the species but would certainly harm the West.

B. GRSG Populations Naturally Fluctuate

A summary of population information found that GRSG lived longer, have higher winter survival rates, lower rates of reproduction, and are more migratory over greater distances than previously thought.¹⁶⁹ While the COT Report concedes, “[T]he actual decline in the number of sage-grouse from pre-settlement times is unclear as estimates of greater sage-grouse abundance were mostly anecdotal prior to the implementation of systematic surveys in the 1950s (Braun 1998),”¹⁷⁰ it fails to recognize that populations of any given species naturally fluctuate.

Populations of any given species are known to be extremely dynamic. It is critical to understand the trends in population dynamics and the factors responsible for population variability to properly evaluate and manage species. Understanding natural fluctuations in abundance and the population dynamics of individual and range-wide populations is also essential for the proper status assessment of a species.

A summary of population information found that GRSG lived longer, have higher winter survival rates, lower rates of reproduction, and are more migratory over greater distances than

¹⁶⁷ 66 Fed. Reg. 15643 (Mar. 20, 2001); *see also* Press Release, FWS, *An Endangered Species Success Story: Secretary Norton Announces Delisting of Aleutian Canada Goose*, (Mar. 19, 2001).

¹⁶⁸ 79 Fed. Reg. 72450, 72453 (Dec. 5, 2014).

¹⁶⁹ Connelly et al. 2011.

¹⁷⁰ COT Report at 6.

acknowledged in the COT Report.¹⁷¹ The COT Report fails to take into account that populations of species are responsive to such factors as seasonal and long-term fluctuations in regional weather conditions, short-term weather extremes and stochastic events, intra- and inter- species competition for resources, intra- and inter- species behavioral competition, predator-prey relationships, and subtle or severe changes in habitat quality. As discussed above, climactic patterns associated with the PDO greatly influence GRSG populations in Wyoming.¹⁷² These and other factors may influence a species greatly, and may mask or prevent a correct interpretation of direct and indirect anthropomorphic factors.

GRSG populations characteristically exhibit multi-annual fluctuations in abundance (Appendix 1, Figure 1 and 2), indicating that some mechanism or combination of mechanisms are causative factors.¹⁷³ Factors influencing GRSG abundance may include weather patterns and the composition and abundance of predators that influence nesting success (Montana GRSG Working Group 2005) Nesting success and chick survival is considered to be the most significant parameter affecting population dynamics.¹⁷⁴

Published studies of factors affecting nest success and GRSG chick survival have focused on micro-scale habitat factors such as percent coverage and height of forbs and grasses and availability of arthropods.¹⁷⁵ These studies follow logically from previous research on GRSG brood habitat selection (Sveum et al. 1998, Drut et al. 1994a, Wallestad 1971, Klebenow 1969) and chick diets (Drut et al. 1994b, Johnson and Boyce 1990, Peterson 1970, Klebenow and Gray 1968). Many relevant studies were with ignored in the COT Report or published subsequent to its release. *See Exhibit C.* Collectively, these studies clearly demonstrate that nesting GRSG

¹⁷¹ Connelly et al. 2011.

¹⁷² *See* Ramey et al. 2014.

¹⁷³ USFWS 2013, Fedy and Doherty 2010, Montana GRSG Working Group 2005.

¹⁷⁴ Schroeder et al. 1999.

¹⁷⁵ Aldridge and Boyce 2007, Dahlgren et al. 2010, Gregg and Crawford 2009.

typically select relatively mesic¹⁷⁶ habitats with abundant forbs and arthropods and that chick survival is highly correlated with these factors. Chick survival has been shown to be an important determinant of population growth rates, yet relatively little is known about chick survival at the population level relative to large-scale abiotic factors such as regional variation precipitation and temperature.

Guttery et al. 2013 reported that climatic variables play a primary role in determining GRSG reproductive success and the study demonstrated that temperature and precipitation have significant effects on chick survival. Similarly, Blomberg et al. 2012 found strong correlation between multiple climatic variables and GRSG population dynamics (*see* Appendix 1, Figure 3 and Figure 4). Annual recruitment of GRSG was higher in years with higher precipitation, based on annual precipitation, annual rainfall, and average winter snow depth. Likewise, GRSG population growth was positively correlated with annual rainfall and mean monthly winter snowpack in the study area. Annual survival of adult male GRSG was negatively affected by high summertime temperatures, as higher survival rates occurred in years with relatively low maximum temperatures.

Extended periods of below normal precipitation and shorter term severe drought may reduce the abundance and duration of herbaceous cover at nest sites, and result in a reduction in the quantity and quality of food resources available to hens and chicks, which, if severe, could jeopardize GRSG survival.¹⁷⁷ The COT Report conveniently ignored environmental impacts to GRSG and focused almost exclusively on alleged human impacts. Prolonged drought during the 1930's and mid- 1980's to early 1990's coincided with declining GRSG populations throughout much of the species' range (Patterson 1952, Fischer 1994, Hanf et al. 1994, Connelly and Braun

¹⁷⁶ Habitat with moderate or well-balanced supply of moisture.

¹⁷⁷ McCarthy and Kobriger 2005; Connelly et al. 2004; Fischer et al. 1996.

1997, Braun 1998). From 1985 through 1995, the entire range of GRSG experienced severe drought, as defined by the Palmer Drought Severity Index, with the exceptions of north-central Colorado and southern Nevada (USFWS 2013). Heath et al. 1997 concluded that drought conditions during spring and summer 1994 in Wyoming resulted in impaired productivity and decreased survival of GRSG, most likely because of subsequent decreases in forb production and increased predation resulting from a lack of sufficient cover.

These results are consistent with the hypothesis that water balance in sagebrush systems is important to GRSG populations and led the authors to conclude that the stability of GRSG populations is dependent upon stable annual survival rates and occasional large inputs of new individuals into the population when climatic conditions are favorable for chick and juvenile survival.

The amount and timing of spring and summer rainfall affects annual plant production and influences population dynamics of GRSG, causing short term fluctuations of less than 10 years in GRSG abundance.¹⁷⁸ Wet springs often result in increased green-up and an increase in the variety of forbs, and consequently insects, on the sage-steppe thereby increasing chick survival.¹⁷⁹ Wyoming Game and Fish Department 2009 reported increases in GRSG numbers in Wyoming during the late 1990's with some individual leks seeing three-fold increases in the number of males between 1997 and 1999. This increase was synchronous with increased spring precipitation over the period. The return of drought conditions in the early 2000's appeared to have led to decreases in chick production and survival, thus resulting in declining populations.

¹⁷⁸ Eustace 2002.

¹⁷⁹ McCarthy and Kobriger 2005, Blomberg et al. 2012.

Conversely, extreme precipitation during spring and summer caused widespread flooding in 2011 in southeastern Montana and increased GRSG nest failure and depressed hatch rates.¹⁸⁰

Cold, wet weather or extremely low temperatures during the hatching period can result in loss of chicks and young birds to hypothermia.¹⁸¹ Measures of drought, precipitation, and temperature can be correlated to winter snow pack which is known to be a major driver of vegetation dynamics throughout much of the mountainous regions of western North America.¹⁸² Long, cold winters with deep snows that cover sagebrush plants on winter ranges can be a threat to survival because GRSG are totally dependent upon sagebrush as food during winter months.¹⁸³

Until several recent studies, there was no evidence that severe winter weather affected GRSG populations unless sagebrush habitat had been greatly reduced (Connelly et al. 2000); however, such an effect was reported recently in several studies. Danvir 2002 recorded declines in a GRSG population following deep snow winters of 1985-86 and 1992-93 in Wyoming. The theory being that the GRSG survival rates declined because the species became more visible, and vulnerable to predation, and that there was increased competition with jackrabbits, mule deer, and other grouse for the sagebrush foliage available above the snowpack. Moynahan et al. 2006 found that a severe winter affected survival of GRSG in Montana from 2001 to 2004. Similarly, Anthony and Willis 2009 reported strong evidence that severe weather (i.e., mean daily min. temp, extreme min. temp, snow depth) affected survival of female GRSG in southeastern Oregon.

The effects of both annual and long-term fluctuations in weather patterns on the nest success and survival of GRSG have been well documented. Short-term fluctuations in weather

¹⁸⁰ Foster et al. year unknown.

¹⁸¹ McCarthy and Kobriger 2005, Hannon and Martin 2006.

¹⁸² Walker et al. 1993.

¹⁸³ McCarthy and Kobriger 2005.

patterns are significant factors contributing to the annual and near future population status, while long term weather patterns have a greater effect on condition of habitats occupied by the population and play a larger role in determining the long term trends of the population.¹⁸⁴

Critical information on natural population fluctuations and the factors that drive them such as weather patterns and survival rates are glaringly omitted in the COT Report. *See* Exhibit C. Taking into account natural fluctuations in GRSG population and their primary drivers, using explicit, data-driven population models (e.g. Bayesian hierarchical state-space models) must be included in any objective and statistically rigorous evaluation of the population status.¹⁸⁵ An accurate assessment of GRSG population dynamics and fluctuations are also critical to proper species management and developing effective conservation and mitigation strategies. Rather than conducting a trends analysis or considering environmental factors that impact populations, the COT Report blindly assumes that long term population trends can be controlled through restrictions on human activity and curtailing multiple uses of public lands.

The COT Report lays the groundwork for an improper regulatory threshold that GRSG populations must be stable or increasing in all cases which is arbitrary, capricious, and unscientific in violation of the DQA, the Guidelines and the additional authorities discussed herein.

C. Predation and Predator Control

The COT Report ignores substantive threats to GRSG in favor of pre-conceived notions of human impact in violation of the DQA and the Guidelines. Predation is the most common cause of direct mortalities of the GRSG. GRSG eggs are preyed upon by red foxes (*Vulpes vulpes*), coyotes (*Canis latrans*), American badgers (*Taxidea taxus*), common ravens (*Corvus*

¹⁸⁴ *Id.*

¹⁸⁵ Coates *et al.* 2014.

corax), and black-billed magpies (*Pica hudsonia*). Common predators of juvenile and adult GRSG are golden eagles (*Aquila chrysaetos*), prairie falcons (*Falco mexicanus*), other raptors, coyotes, American badgers, and bobcats (*Lynx rufus*). Younger birds, especially broods, are preyed upon by common ravens, red foxes, northern harriers (*Circus cyaneus*), weasels (*Mustela sp.*), and various species of ground squirrels and snakes.

Of these predators, the common raven is the most abundant and has the greatest impact on the survivorship of the GRSG. Raven populations have increased an estimated 300% in the past 27 years in the United States (Sauer et al. 2008) with reports of 1,500% increases within a 25-year period in some areas of the West.¹⁸⁶ The COT Report virtually ignores this critical fact. While not migratory species, crows and ravens are inexplicably protected under the Migratory Bird Treaty Act (“MBTA”).¹⁸⁷ Nowhere does the COT Report call out that the primary predator of GRSG is protected by the MBTA such that predator control efforts that would benefit GRSG are hindered by regulatory red-tape and FWS approvals.

Mortality due to predation during the first few weeks after hatching was estimated to be 82%.¹⁸⁸ In regards to Gunnison sage-grouse, “survival of juveniles to their first breeding season was estimated to be low (10%)” which could be similar for GRSG.¹⁸⁹ The COT Report alleges nest success and survival studies are impacted by predation only where poor land management, which the COT Report seems to characterize as grazing, is an issue. Exhibit A at 8-9. Failure to recognize the significant impacts of predation and the attempt to attribute such impacts to human influences clearly exhibits bias. Moreover, nothing is presented to quantify the habitat

¹⁸⁶ Boarman 1993.

¹⁸⁷ 50 C.F.R. § 20.100.

¹⁸⁸ Gregg *et al.* 2007.

¹⁸⁹ GUSG Threatened Listing, 79 FR 69192, 69274 (Nov. 20, 2014).

conditions that are purported to increase the significance of predation and nothing to identify the significance those conditions to sage grouse habitat throughout their range in the COT Report.

The common raven is clever and highly adaptable, which allows it to opportunistically exploit food resources provided by human activities. Ravens routinely forage at landfills, in dumpsters, and at livestock operations and they commonly scavenge on carcasses of animals killed by vehicle strikes. The explosive increase in raven abundance has resulted in large increases in predation, and has contributed to the severe decline of many species including the desert tortoise (*Gopherus* sp.), marbled murrelet (*Brachyramphus marmoratus*), least tern (*Sternula antillarum*), California condor (*Gymnogyps californianus*), and GRSG.

While many scientific studies have found that GRSG nest predation is related to the amount of herbaceous cover surrounding nest sites and that nesting success is correlated with vegetation structure and composition, suggesting that the quantity and condition of breeding habitat is the most important factor that dictates the productivity of GRSG (Connelly et al. 1994, Braun 1998, Schroeder and Baydack 2001, Coates 2007, Hagen 2011). The COT Report ignores substantial evidence indicating that most GRSG nests are lost to predators such as red foxes, badgers, coyotes, black-billed magpies, and common ravens, even in excellent GRSG habitat. See Exhibit B at 19-20.¹⁹⁰

The negative effects of predation and raven abundance on nest success have been well documented. GRSG nests are subject to varying levels of predation. Predation can be total (all eggs destroyed) or partial (one or more eggs are destroyed). However, in either case, hens abandon the nests.¹⁹¹ Re-nesting efforts may partially compensate for the loss of nests due to predation (Schroeder 1997) but may not completely offset the losses. Additionally, the presence

¹⁹⁰ See also Gregg et al. 1994, Heath *et al.* 1997, Holloran 1999, Connelly et al. 2004.

¹⁹¹ Coates 2007.

of high numbers of predators within a GRSG nesting area may negatively affect GRSG productivity without causing direct mortality. Loss of breeding hens and young chicks to predation can influence overall GRSG population numbers, as these two groups contribute most significantly to population productivity.¹⁹²

According to Valkama et al. (2005), predation may influence grouse population dynamics by reducing nest success, survival of juveniles especially during the first few weeks after hatching, and annual survival of breeding age birds. Similarly, others found that nest predation can be a limiting factor for GRSG population sustainability.¹⁹³ Moynahan et al. (2007) reported that 54% of nest failures were caused by predation. Gregg et al. (2007) estimated that GRSG mortalities due to predation were as high as 82% during the first few weeks after hatching.

Raven abundance was strongly associated with GRSG nest failure in northeastern Nevada, resulting in negative effects on GRSG reproduction.¹⁹⁴ The study associated increased raven abundance with a reduction in the time spent off the nest by female GRSG, thereby potentially compromising the ability to secure sufficient nutrition to complete the incubation process. Similarly, high crow and related corvid family abundances attributed to increased GRSG nest and brood failure in western Wyoming (Bui 2009). Coates and Delehanty (2010) found that GRSG nest failure and observed raven predation of GRSG nests were associated with indices of raven abundance. Decreases in daily survival rate of GRSG were attributed to increased raven abundance.

Unlike other population limiting factors such as weather, and drought, predation can realistically be reduced by applying appropriate management measures.¹⁹⁵ Management of some

¹⁹² Baxter et al. 2008.

¹⁹³ Nelson 1955, Gregg et al. 1994, Schroeder and Baydack 2001.

¹⁹⁴ Coates 2007.

¹⁹⁵ Cote and Sutherland 1997.

predator populations, especially raven populations occurring in areas where GRSG mortality is high, is needed to ensure that GRSG populations are not depressed by a known and easily mitigated source of mortality.

In 2001, the U.S. Department of Agriculture (USDA) Animal Plant Health Inspection Service (APHIS) Wildlife Services (WS) initiated a systematic raven management program in Nevada to reduce raven numbers in GRSG habitat. The primary method of raven removal was through chicken egg baits treated with DRC-1339 (3-chlorop- toluidine hydrochloride). Coates and Delehanty (2004) observed that GRSG nest success near these raven removal activities was significantly greater (73.6%) than the mean nest success (42.6%) based on 14 studies from 1941 to 1997.¹⁹⁶ They also observed that raven numbers in treated areas declined from a high of 5/km² to low of 0.31/km² over a period of five month.

In 2007, the USDA/APHIS/WS began testing the effects of the removal of common ravens using baits treated with DRC-1339 to livestock depredation in southern Wyoming. This program provided additional information of the potential effects of raven removal on GRSG nest success. It was found that the nest success of GRSG was reduced when ravens were present within 550 meters of a nest. The study also reported that the abundance of ravens can be substantially reduced at a relatively large scale (15-km radius or 706.5 km²) by using DRC-1339; raven densities decreased by 61% at removal sites compared to an increase of 42% at non-removal sites. In areas occupied by ravens, average GRSG nest survival was estimated at 22%; and in areas absent of ravens, nest survival was estimated at 41%. This suggests that areas with high raven populations may contribute to lower GRSG population growth rates (Dinkins 2013). Cote and Sutherland (1997), using meta-analytic techniques, found that predator removal has a

¹⁹⁶ Schroader et al. 1999.

large, positive effect on post breeding population size and hatching success for several species of game birds.

Results of these raven removal efforts suggest that well-designed raven management strategies could substantially increase GRSG nest survival rates in areas where raven predation is a substantial contributing factor to nest failure. Long-term solutions to reduce artificially high raven abundances are necessary to address the detrimental effects of raven predation on GRSG and other imperiled species. Reducing raven abundance has been shown to be effective using some lethal means, and reducing numbers may also be possible using other as yet untested lethal and non-lethal means. Effective lethal control might be accomplished by shooting, removal of raven nests and eggs, and poisoned baits. Effective non-lethal control might be accomplished by reducing or eliminating nesting structures and/or making subsidized food resources (road-kill, dead livestock, and garbage) unavailable. Despite the research and application of these methods for raven management, the COT Report selectively disregarded them.

The negative effects of predation on the nest success of the GRSG have been well documented and should be included in any objective and complete analysis of threats to GRSG. The 2010 WBP decision (USFWS 2010) recognized predation as a primary threat to the GRSG and devoted three pages of discussion to this issue.¹⁹⁷ Despite this, some recent efforts to develop range-wide conservation objectives for the GRSG and to inform the public of the upcoming 2015 listing decision failed to recognize and address predation as a primary threat to the species.

The COT Report virtually ignored the topic of predation and the major body of scientific literature on raven predation and experimental data on predator management. It fails to recognize predation as the single most important factor affecting the abundance of the GRSG.

¹⁹⁷ 75 Fed. Reg. at 13910.

Substantial and critically important information on these topics is available from a variety of sources including Boarman 1993; Boarman 2003; Boarman et al. 1995; Boarman and Heinrich 1999; Boarman et al. 2006; Bedrosian and Craighead 2010; Bui 2009; Cagney et al. 2010; Christiansen 2011; Coates 2007; Coates and Delehanty. 2004; Coates et al. 2008; Coates and Delehanty 2010; Conover et al. 2010; Cote and Sutherland 1997; DeLong 1995; Gregg et al. 1994; Heinrich et al. 1994; Moynahan et al. 2007; Preston 2005; Ramey, Brown, and Blackgoat 2011; Schroeder and Baydack 2001; Snyder et al. 1986; Sovada et al. 1995; Watters et al. 2002; and Webb et al. 2009. Finally, recent work Baxter et al. 2013 shows even bottlenecked GRSG populations can see marked population improvements following predator control efforts.¹⁹⁸

The COT Report ignored the body of literature relevant to raven predation on GRSG, including its deleterious effect on survivorship and recruitment, and most importantly, the integrated management strategies that can reduce losses of GRSG. Only two references related to predation on GRSG were cited (Greg et al. 1994 and Hagen 2011) and the word “raven” was mentioned only once, at 63. The COT Report did not mention predator management that could benefit GRSG within high risk areas and instead, viewed predation as a byproduct of human activities that could be regulated through land health assessments and emphasizing vegetation cover as a means to measure and mitigate livestock use; or increasing landscape level habitat connectivity. This extremely passive and scientifically untested approach is speculative at best and therefore would not result in a reduction of the short-term or long-term threats caused by high raven abundances.

Even though the COT Report contends that predation impacts are solely related to habitat condition, there is no information to suggest that habitat conditions alone will compensate for

¹⁹⁸ Baxter, R. J., Larsen, R. T. and Flinders, J. T. (2013), Survival of resident and translocated greater sage-grouse in Strawberry Valley, Utah: A 13-year study. *The Journal of Wildlife Management*, 77: 802–811. doi: 10.1002/jwmg.520.

excessively high predator populations. The information disseminated concludes that, regardless of habitat conditions, predation does not affect GRSG populations in general. However, the removal of predators was a primary factor in the recovery and delisting of the Aleutian Canada goose in North America.¹⁹⁹ In delisting the Aleutian Canada goose, FWS also recognized the removal of predators benefited not only that species, but many other bird species on the islands, including puffins, murrelets, and auklets.²⁰⁰

The COT Report provides limited and selective evaluations of threats to GRSG, and ignore the major body of scientific literature that is available on raven predation and experimental predator management. In order to comply with the DQA and the Guidelines, the FWS needs to address and incorporate this information on the effects of predation and predator control into the COT Report.

D. Hunting

The COT Report virtually ignores hunting as a threat to GRSG. GRSG have rangewide population estimates in excess of 535,000.²⁰¹ Some 207,430 GRSG were harvested during hunting seasons between 2001 and 2007.²⁰² As a result, ongoing hunting is likely a contributor to declines in GRSG populations or avoidance of human activities in GRSG populations. New data and research published by Gibson et al. 2011 have refuted the frequently repeated belief that there is a no additive demographic effect of hunting on GRSG populations. Thus, the hunting of some populations can have an effect not only on those populations but also on nearby populations that are not hunted (but are genetically and demographically linked by dispersal).²⁰³

¹⁹⁹ 66 Fed. Reg. 15643 (Mar. 20, 2001); *see also* FWS News Release, March 19, 2001.

²⁰⁰ 66 Fed. Reg. 15643 (Mar. 20, 2001); *see also* Press Release, *An Endangered Species Success Story: Secretary Norton Announces Delisting of Aleutian Canada Goose*, (Mar. 19, 2001).

²⁰¹ 75 Fed. Reg. 13910, 13921 (Mar. 23, 2010).

²⁰² Reese and Connelly 2011.

²⁰³ Gibson et al. 2011.

E. West Nile Virus

The COT Report presents West Nile Virus (“WNV”) as a threat to GRSG, yet fails to acknowledge that mosquitoes are already sufficiently managed and there are new technologies other than larvicides that have been proven effective to controlling mosquito populations. According to data from the Centers for Disease Control (“CDC”) the risk to avian species from WNV has declined to virtually nothing since 2003.²⁰⁴ This is an example of where only a portion of the available information is used to address the impacts, in this case of WNV on GRSG, resulting in onerous and unfounded mitigation requirements.

F. Existing Regulatory Mechanisms

In 2010, FWS determined GRSG were warranted for listing based primarily on the present or threatened destruction, modification or curtailment of habitat or range and the alleged inadequacy of existing regulatory mechanisms. The COT Report sets forth strategies to address resilience focused on habitat.²⁰⁵ However, the COT Report also recognized that adequate regulatory mechanisms are essential to addressing habitat concerns.²⁰⁶ While the COT dimly acknowledges BLM and USFS Land Use Plan Amendments and the development and implementation of individual state management plans for GRSG, it fails to grasp the depth and breadth of these efforts.

Moreover, the COT Report fails to acknowledge the regulatory mechanisms already inherent to BLM’s regulation and management of the onshore oil and natural gas program. No drilling, access, seismic studies or any other surface disturbing work can proceed without regulatory authorization by BLM. This regulatory authorization comes in multiple forms, but the

²⁰⁴ See http://diseasemaps.usgs.gov/wnv_us_human.html.

²⁰⁵ COT Report at 38.

²⁰⁶ *Id.*

primary are commitments made in project-specific NEPA documents, and Applications for Permit to Drill (“APD”).

Companies may not apply for an APD without first completing project-specific environmental analysis under NEPA. When BLM determines that there will be significant impact to GRSG or other resources for that matter, it prepares an Environmental Impact Statement (EIS) that includes mitigation measures for protecting GRSG. BLM and the companies make a firm commitment that the mitigation measures in the EIS will be enforced through Conditions of Approval (“COA”) on APDs. As the APD is absolutely required before drilling can occur, this amounts to a regulatory mechanism that should be recognized by FWS. In fact, a study prepared by SWCA Environmental Consultants found that oil and natural gas companies have more stringent standards in place than the agencies acknowledge. From just a sample of 103 NEPA documents for oil and natural gas projects, the study found that companies have implemented 773 conservation measures for GRSG. This equates to an average 6.5 firm, enforceable regulatory commitments through COAs on APDs to protect GRSG.²⁰⁷

These measures include monitoring existing populations, restricting human activities to protect leks, interim and final reclamation, noxious weed control, dust suppression through application of water or chemical suppressant to roadways, enforcing speed limits, seeding of all disturbed areas that are not used during the well production phase, NSO buffers to protect wetlands, and general noise abatement.²⁰⁸ Additionally, oil and natural gas companies have

²⁰⁷ See *Id.* at page 5; see also List of NEPA Documents Reviewed beginning at 35.

²⁰⁸ *Id.* at page 7-8.

made concerted efforts to reduce human-subsidized GRSg predators, and access to wastewater pits to prevent GRSg oiling and drowning.²⁰⁹

NEPA is indeed a valid regulatory mechanism to protect and conserve GRSg, as there is certainty that each COA or conservation measure will be implemented.²¹⁰ The Western Governor's Association has compiled similar useful information on existing conservation efforts.²¹¹ The State of Colorado audited COAs recommended by Colorado Parks and Wildlife through Colorado Oil and Gas Conservation Commission rules and found a 97% adoption and implementation rate:

“Results show very high correlation between Best Management Practices (BMPs) recommended by SPW for protection of GrSG habitat and voluntary adoption. In other words, CPW met with operators every time a permit for drilling in GrSG habitat was sought. During those consultations, CPW recommended a series of actions designed to minimize or eliminate impacts on habitat. Adoption of those recommendations by an operator is entirely voluntary under the 1200-series regulations, but our analysis suggests that they are adopted 97% of the time. Please see Appendix B for the full report.”²¹²

FWS has ignored these, and other, extensive existing regulatory mechanisms in the COT Report in violation of the DQA, the Guidelines and the additional authorities cited herein. This regulatory certainty should be acknowledged by FWS in the COT Report.

G. Livestock Grazing

The COT Report fails to recognize the best available science on livestock grazing. The COT asserts “[I]mproper livestock management” per local ecological conditions, may have negative

²⁰⁹ *Id.* at page 18; *see also* 139 (Exxon Mobile: “It will be the responsibility of the operator to effectively preclude migratory bird access to, or contact with, reserve pit contents that possess detrimental properties (i.e., through ingestion or exposure) or have potential to compromise the water-repellent properties of birds’ plumage”).

²¹⁰ *Id.* at page 27.

²¹¹ <http://www.westgov.org/>.

²¹²

<http://cpw.state.co.us/Documents/WildlifeSpecies/SpeciesOfConcern/GreaterSageGrouse/ColoradoSynthesisReportFINAL.pdf>

impacts on GRSG seasonal habitats.²¹³ While the primary focus is on PACs, the COT calls for changes to grazing management “across all sagebrush habitats” including even private lands.²¹⁴ In addition, the Report recommends removing, modifying or marking fences.²¹⁵ The COT Report recommends the avoidance of infrastructure at all within PACs.²¹⁶ These assertions are not based upon the best available information and, thus, violate the DQA, the Guidelines and the additional authorities cited herein.

The COT Report focuses on the negative impacts of historic grazing, with some citations to alleged threats from grazing being decades old.²¹⁷ Rather than proposing restrictions on historic activities that don’t reflect actual practices today, FWS should be evaluating the application of and results of modern grazing management.²¹⁸ Historic grazing and research reports of specific grazing practices are immaterial to the question of how modern grazing management practices affect sage grouse habitat.

A 1990 US-DOI BLM report shows that good condition rangeland increased by 100% and poor condition rangeland decreased by 50% between 1936 and 1989. In the years since, there has been extensive progress in the implementation of proper grazing management on federal, state and private lands. Furthermore, it is more important and useful to consider rangeland trends rather than current condition. Regardless of current ecological status, rangelands that are in an upward ecological trend also have improving sage grouse habitat.

It is well established that “In the 1960s and 1970s, Idaho had large numbers of sage grouse and extensive livestock grazing. This suggests that healthy sage grouse populations and

²¹³ COT Report at 44-45.

²¹⁴ *Id.* at 45.

²¹⁵ *Id.* at 52.

²¹⁶ *Id.* (emphasis added).

²¹⁷ *See* COT Report at 46.

²¹⁸ *See* Launchbaugh 2012; Mosley and Brewer 2006; Briske et al. 2011.

livestock grazing are compatible. In short, livestock grazing that results in rangeland in good ecological condition also provides acceptable sage grouse nesting, chick rearing and winter habitat.”²¹⁹

Furthermore, the COT Report is clearly contradictory where in one case it suggests grazing has an impact on predation that may affect bird populations and in the second case concludes that predation does not affect bird populations. Moreover, the Wyoming Department of Agriculture has strongly stated livestock grazing has no negative effects on the GRSG.²²⁰

According to the USDA National Agricultural Statistics, Wyoming sheep numbers were at or near all-time highs the same year GRSG numbers were at or near all time highs (1969).²²¹ Sheep numbers have dropped precipitously over the last several decades in Wyoming and other Western States.²²² Predator numbers have increased accordingly. In fact, the Wyoming Department of Agriculture stated, “[H]abitat alteration caused by livestock grazing (mosaic creation), as well as the predator control offered by livestock producers, have improved and benefited [sic] sage grouse.”²²³

Besides ignoring these data from the states, which are the most accurate sources, FWS wholly failed to analyze the effectiveness of current livestock grazing and range management frameworks, standards, and guidelines and failed to consider site-specific considerations to provide case-by-case determinations of effective regulatory mechanisms actually needed for a location. Schultz 2004 (specific herbaceous height and cover values across the range of GRSG are inappropriate). The COT Report failed to consider that livestock grazing benefits GRSG

²¹⁹ Idaho Sage Grouse Management Plan (1997).

²²⁰ Letter from Jim Schwartz, Wyoming Department of Agriculture, to Dr. Pat Diebert, U.S. Fish and Wildlife Service (July 30, 2004) (on file with the Wyoming Department of Agriculture).

²²¹ <http://www.nass.usda.gov:81/ipedb/report.htm>).

²²² *Id.*

²²³ Letter from Jim Scwharz, Wyoming Department of Agriculture, to Dr. Pat Deibert, U.S. Fish and Wildlife Service (July 20, 2004) (on file with Wyoming Department of Agriculture).

habitat and that regulatory restrictions on grazing could threaten the viability of ranching in the West. This is contrary to the DQA, its Guidelines and the best interests of GRSG.

The COT Report also undercuts the balanced grazing program passed by Congress as the Taylor Grazing Act (“TGA”). Congress intended TGA land be used primarily for grazing. The COT Report advocates single-use management in direction contravention to existing laws such as the TGA. Accordingly, the COT Report, as implemented through Land Use Plan Amendments and/or a potential listing of GRSG, will result in significant economic and social impacts. Federal agency demands for current conservation efforts fail to provide a true holistic approach to managing multiple ownership lands in an economically sustainable manner.

FWS must recognize that regulatory burdens such as those advocated in the COT Report, could prove so burdensome that ranching on private lands will become unsustainable. Private lands integral to GRSG conservation, then, will be marketed and sold. When this land is subdivided, GRSG populations may suffer. Accordingly, the very regulatory mechanisms proposed may threaten the productive private and public land relationships that sustain ranching, rural communities and wildlife populations.

The COT Report did not include input from any affected stakeholders or interdisciplinary experts aside from state and federal scientists and specialists. It ignores regional variances in GRSG needs, and does not present a comprehensive representation of the literature and research surrounding livestock grazing. For example, the COT Report ignored Cagney et al. 2010 which demonstrates positive attributes of grazing in Wyoming for nesting and early brood rearing habitat.

The COT Report fails to recognize that grazing is a key contributor to GRSG habitat and conservation and omits the many positive impacts of grazing. Grazing is integral to reducing

fuels.²²⁴ Without grazing, GRSG habitat would suffer greatly in the West.²²⁵ The many contributions of grazing and ranching, which are largely ignored or understated in the COT

Report, include:

- Preservation of open space
- Noxious weed and invasive species eradication and containment
- Production of forb growth that is preferred by GRSG to non-grazed areas
- Wildfire prevention and controlled burn efforts
- Development of wildlife watering sources, including placement of bird ladders in troughs
- Predator management

H State, Local and Private Conservation Efforts

The COT Report also fails to recognize that states have undertaken significant efforts to conserve GRSG. State conservation plans are preferable alternatives to the misdirected management protocols in the Reports.²²⁶ Federal agencies can rely upon state, regional, and local plans in their consideration of environmental impacts under NEPA.²²⁷

As Utah Governor Gary Herbert has pointed out, state plans better balance future economic activities with robust protections for GRSG, and were developed using a bottom-up process with input from diverse stakeholders, rather than the top-down approach taken by the agencies.²²⁸

The COT Report also fails to adequately consider the states' primary authority over wildlife management and their central role in managing GRSG populations and habitat within their borders. The states are better suited than the federal government to manage GRSG as such

²²⁴ See Davies et al. 2008; Diamond et al. 2009; Messmer and Peterson 2009; Freese et al. 2013; Taylor 2006; and Mosley and Roselle 2006.

²²⁵ See Launchbaugh 2012; Mosley and Brewer 2006; Briske et al. 2011.

²²⁶ *Conservation Plan for Greater Sage-Grouse in Utah, February 2013*; State of Wyoming's Governor's Executive Orders 2011-05 and 2013-3.

²²⁷ See, e.g. 40 CFR § 1502.21; *Georgia River Network v. U.S. Army Corps of Engineers*, 334 F. Supp. 2d 1329, 1345 (N.D. Ga. 2003) (agency properly relied upon federal, state and local regulations, including local land use plan); *Sierra Club North Star Chapter v. La Hood*, 693 F. Supp. 2d 958, 990 (D. Minn. 2010) (accepting reliance on local plans in indirect effects analysis).

²²⁸ See attached Exhibit A.

action falls within their traditional jurisdiction and professional expertise. Active consultation between the states and federal agencies, as well as local governments and local GRSG working groups, is a more effective approach than the top-down, one-size-fits-all restrictions in the COT Report.

Even the federal government's Sage Grouse Initiative has recognized the importance of private lands to GRSG conservation.²²⁹ The COT Report must recognize that regulatory burdens such as those advocated in Land Use Plan Amendments, could prove so burdensome that ranching on private lands will become unsustainable. Private lands integral to GRSG conservation, then, would be marketed and sold. When this land is subdivided, GRSG populations would suffer. Accordingly, the very regulatory mechanisms proposed may threaten the productive private and public land relationships that sustain ranching, rural communities and wildlife populations.

Irrigation on private land provides an important link to GRSG leks which are often located on drier public lands. As *The Progressive Rancher* reported, hundreds or more small homesteads covered large portions of Nevada in the late 1800s to the mid-1900s.²³⁰ The homesteads were nearly always located on a spring or stream that the owners used to irrigate meadows. The homesteaders also vigorously shot and trapped predators, such as coyotes, ravens and badgers. As the Reason Foundation summarized, “[T]he result, according to the article, was a higher sage grouse population than exists today and a distinct geography to the grouse’s high

²²⁹ Sage Grouse Initiative. 2014. *Private Lands Vital to Conserving Wet Areas for Sage Grouse Summer Habitat*, Science to Solutions Series Number 4. Sage Grouse Initiative. 4pp. <http://www.sagegrouseinitiative.com/>.

²³⁰ *Progressive Rancher*, July/August Edition (last visited Dec. 23, 2014 at 4:24 PM). http://www.progressiverancher.com/Resources/ProgressiveRancher_JulyAug2014.pdf.

quality water-dependent habitat: lots of it in small pockets scattered widely across the landscape.”²³¹

Contrary to some assertions, federal regulation of private land is not conducive to continued conservation. Rather, federal regulation has a significant chilling effect on local, state and private conservation efforts. For example, when FWS proposed listing the Gunnison GRSG despite over \$50 million in state investment and 65,000 acres of private lands protected by conservation easements, county officials felt deeply betrayed. Commission Chair Paula Swenson said she was “furiously frustrated” and Commissioner Jonathan Houck, former mayor of the town of Gunnison, said he felt “cut off at the knees.”²³² Upon listing the Gunnison GRSG, Colorado Governor John Hickenlooper, in a significant bipartisan press release with Members of Colorado’s Congressional Delegation, stated:

“We are deeply disappointed the U.S. Fish and Wildlife Service chose to ignore the extraordinary efforts over the last two decades by the state, local governments, business leaders and environmentalists to protect the Gunnison sage grouse and its habitat. This sends a discouraging message to communities willing to take significant actions to protect species and complicates our good faith efforts to work with local stakeholders on locally driven approaches. In short, this is a major blow to voluntary conservation efforts and we will do everything we can, including taking the agency to court, to fight this listing and support impacted local governments, landowners and other stakeholders.”²³³

In response to the Gunnison listing decision, the Colorado Cattlemen’s Association issued a release titled, “Lawsuit-Inspired Listing Ends 20 Years of Conservation Efforts.”²³⁴

²³¹ Brian Seaholes, *Sage Grouse Success is Inextricably Linked to Ranching and Farming in the West According to the Co-author of a Groundbreaking New Study*, <http://reason.org/blog/show/sage-grouse-success-is-inextricably#> (Oct. 9, 2014 at 9:43 AM) (last visited Dec. 23, 2014 at 4:38 PM).

²³² Lynn Bartels, The Denver Post, *Gunnison Seeks to Protect Grouse, Residents from Endangerment Listing*, http://www.denverpost.com/news/ci_26539987/gunnison-seeks-protect-grouse-residents-from-endangerment-listing (Sept. 15, 2014).

²³³ Official Colorado State Web Portal, *Gov. Hickenlooper, Senators Bennet and Udall and Congressman Topton Issue Statements on Gunnison sage Grouse Listing Decision*, <http://www.colorado.gov/cs/Satellite?c=Page&childpagename=GovHickenlooper%2FCBONLayout&cid=1251658153409&pagename=CBONWrapper> (Nov. 12, 2014).

²³⁴ <http://us8.campaign-archive2.com/?u=8f5fe0c71eb61a94f0da35e3f&id=7432815534>

Similarly, in a letter to Interior Secretary Sally Jewel, the Western Governors' Association expressed deep disappointment in one-size-fits-all regulatory restrictions proposed for GRSG and that coordination with the states was "treated more as an afterthought."²³⁵

These assertions are backed by sound evidence. According to NRCS, private conservation efforts declined by 95% when FWS proposed listing the bi-state population of GRSG. Even worse, private landowners understandably manage their lands specifically to avoid the presence of species once they have been listed under the ESA.²³⁶

While the COT Report, in some cases, relied upon state mapping to delineate Priority Areas for Conservation ("PACs"),²³⁷ it has failed to include mapping at an appropriate local scale. For instance, Garfield County developed a Greater Sage-Grouse Conservation Plan based on the best available science and a tailored approach to private and public land management to benefit the species.²³⁸ In recognition of the County's unique habitat characteristics, i.e. extreme topographic variation and naturally fragmented suitable habitat patches, Garfield County commissioned an in-depth analysis of its 2,956 square miles, revealing that nearly 70% of Garfield County is not suitable for the GRSG.²³⁹ However, there are small but important patches

²³⁵ <http://westgov.org/news/298-news-2014/800-western-governors-concerned-federal-work-with-states-on-sage-grouse-conservation-an-afterthought-see-clear-concise-input>

²³⁶ Brian Seasholes of the Reason Foundation has provided an excellent summary of landowner reactions to the perverse disincentives of the ESA: <http://reason.org/blog/show/the-state-of-the-birds-2014-report> (emphasis added).

²³⁷ COT Report at 13.

²³⁸ Garfield County, Board of County Commissioners, *Greater Sage-Grouse Conservation Plan*, <http://www.garfield-county.com/community-development/documents/FINAL-Approved-Grouse-Plan-Amendment%2011-20-2014.pdf> (Habitat mapping provided by state and federal agencies were not accurate and did not provide adequate planning information).

²³⁹ *Id.* at pages 10-17, and 35-37 (The Plan utilized highly sophisticated and peer reviewed habitat modeling completed in November of 2014 that proved a 67% decrease in potentially suitable habitat from Colorado Parks and Wildlife's model, indicating the state and BLM over-mapped 147,000 acres of private and public land).

of suitable GRSG habitat in Garfield County, amounting to at least 70,000 acres.²⁴⁰ Garfield County's plan accordingly focuses conservation efforts on that suitable habitat.

While the COT Report does recognize the efficacy of using local data, albeit with caveats for peer review requirements,²⁴¹ related to habitat conditions, fire and successful restoration activities,²⁴² it should also recognize that state and local conservation efforts have proven more accurate and effective than the top-down, one-size-fits-all federal approach. Here, the practical effect of the restrictions proposed in the COT Report would be to "protect" vast areas of non-habitat and marginal habitat with no demonstrable benefit to GRSG populations. *See* Exhibit B, *gen.* Land Use Plan Amendments are incorporating COT recommendations as seasonal four-mile NSO buffers around active leks during lekking, nesting and early brood rearing in all designated habitat.²⁴³ However, the buffers proposed are far more extensive than necessary because of the reliance on suspect data, assumptions, and modeling. There are no data that show proposed exclusion areas (including proposed four-mile NSO buffers) would address any specific threat to GRSG or result in any quantifiable benefit to GRSG. *See* Exhibit B at 26-30.

I. Multiple-Use Mandates

The COT Report conflicts with statutory multiple-use mandates as it elevates conservation above all other uses of public lands. Implementation of the COT Report in Land Use Plans Amendments will impede the statutory missions of land management agencies and

²⁴⁰ *Id.* at pages 7-8, 16-18, and 25-26 (acreage includes suitable habitat for all range of GRSG lifespan behavioral requirements).

²⁴¹ As noted herein, the FWS itself has failed to comply with peer review requirements for the COT Report.

²⁴² COT Report at 39, 41.

²⁴³ *See* NW CO GRSG DEIS at 161-165; The dates for nesting/early brood-rearing habitat vary by field office. Every field offices' nesting/early brood-rearing habitat starts on March 1 except for the White River Field Office which starts on April 15. All of the field offices' nesting/early brood-rearing habitat ends on June 30 with the exception of White River which ends on July 8. However, BLM statewide dates for nesting/early brood-rearing habitat are March 1 – July 15.

will adversely affect agriculture, recreation, local governments, utilities, mining and the ability to explore for, produce, and transport domestic energy on public lands.

FWS must also consider how the GRSG-centric management contained in the COT Report and the Land Use Plan Amendments is appropriate in the context of other special status species. FWS must resolve these issues and explain how the COT Report's recommendations by way of land use restrictions, prohibitions, and withdrawals achieve the required balance in managing the public lands. If the recommendations found in the COT are not implementable than the COT Report itself lacks the requisite "usefulness" or utility pursuant the DQA. The COT Report cannot amend nor alter the agencies' statutory missions. Nor can it impact valid existing rights.

V. The DQA Applies to the COT Report

DOI issued its Guidelines to ensure high quality information is generated, used, and disseminated; and to comply with OMB's charge that each agency adopt DQA Guidelines.²⁴⁴ "The Department's methods for producing quality information will be made transparent, to the maximum extent practicable, through accurate documentation, use of appropriate internal and external review procedures, consultation with experts and users, and verification of its quality."²⁴⁵ Information released by DOI will be reproducible to the extent possible and influential information shall be produced with "a high degree of transparency about data and methods."²⁴⁶ "Analytic results shall generally require sufficient transparency about data and methodology that an independent reanalysis could be undertaken by a qualified member of the public resulting in substantially the same results."²⁴⁷

²⁴⁴ <https://www.doiioig.gov/docs/InformationQualityGuidelines.pdf>.

²⁴⁵ DOI Guidelines, II.

²⁴⁶ *Id.*

²⁴⁷ *Id.*

A. Information Dissemination Product

The OMB Guidelines define “Information Dissemination Product” as “any books, paper, map, machine-readable material, audiovisual production, or other documentary material, regardless of physical form or characteristic, an agency disseminates to the public. This definition includes any electronic document, CD-ROM, or web page.”²⁴⁸

The COT Report was disseminated electronically by FWS. Accordingly, it meets the definition of “information dissemination product.” The intended users of this information include FWS, BLM, USFS, state and local governments, domestic energy producers, agricultural producers, public land managers, local and state governments and the general public.

OMB Guidelines define “Dissemination” as “agency initiated or sponsored distribution of information to the public.”²⁴⁹ The COT Report was disseminated by FWS. The agency has represented the NTT Report as, and used it in support of, an official position of the agency in such a way that the Guidelines apply.²⁵⁰ Neither the authors of the COT Report nor FWS have disclaimed that the COT Report is not information subject to correction or retraction under the DQA. FWS has disseminated the COT Report by, among others, publication on its website.²⁵¹

B. Third-Party Information

To the extent FWS considers the COT Report, third-party information, the DQA and its Guidelines still apply. Certain third-party information that an agency makes public is also subject to the DQA and the Guidelines. “If third-party submissions are to be used and disseminated by Federal agencies, it is the responsibility of the Federal Government, under the [Data] Quality Act, to make sure that such information meets relevant information quality

²⁴⁸ 67 Fed. Reg. 8452, 8460 (Feb. 22, 2002).

²⁴⁹ 67 Fed. Reg. 8452, 8460 (Feb. 22, 2002).

²⁵⁰ http://www.whitehouse.gov/omb/fedreg_reproducible

²⁵¹ <http://www.fws.gov/greatersagegrouse/documents/COT-Report-with-Dear-Interested-Reader-Letter.pdf>

standards.”²⁵² The Guidelines state third-party information endorsed, adopted, disseminated or relied upon, must meet the quality, objectivity, utility and integrity standards required by the DQA and should be subject to DQA correction. The DOI Guidelines expressly apply to non-departmental parties that develop scientific and technical information on its behalf.²⁵³

C. If Uncorrected, the COT Report Will Cause Substantial Harm

Here, FWS issued no disclaimers to explain that it did not or will not use, rely upon or endorse the information disseminated. Many DOI and FWS employees contributed to the COT Report and it has been heavily relied upon by FWS and other agencies. Accordingly, the DQA and the Guidelines clearly apply.

Reliance on uncertainties, inaccuracies, bias and misrepresentation in the COT Report will result in dramatic changes across millions of acres of public lands. To avoid actual harm to the Petitioners, western states, local governments, private landowners and stakeholders, FWS must timely respond to this DQA challenge and retract statements and conclusions based on uncertainties and correct bias and misrepresentation of the information disseminated.

Where, as here, Petitioners have provided “significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts,” FWS should use existing mechanisms to remedy the situation “such as re-proposing a rule or supplementing a NEPA analysis.”²⁵⁴ Corrective action in this case should include a retraction of the COT Report and its withdrawal from consideration in alternatives in Land Use Plan Amendments and any listing decision on GRSG.

²⁵² OMB § 11 “Information Quality: A Report to Congress” (April 30, 2004).

²⁵³ DOI Guidelines II.4; DOI Guidelines V.

²⁵⁴ DOI Guidelines III.

D. The COT Report is Highly Influential Information

The information disseminated here readily qualifies as influential information. As OMB states, “[T]he more important the information, the higher quality standards to which it should be held”²⁵⁵ Ordinary information is distinguished from “influential” information -- that is, scientific, financial and statistical information having a clear and substantial impact on important public policies or important private sector decisions. “Influential” information is subject to higher standards of quality and should be reproducible by qualified third parties. The information disseminated in the COT Report is information of extreme importance to states, landowners, user groups and local conservation efforts.

OMB Guidelines define “influential” requests for correction as those of a substantive nature, which sought “something more than a straightforward webpage or data fix. “Influential” has also been defined to mean “that the agency can reasonably determine that dissemination of the information will have or does have a clear and substantial impact on important public policies or important private sector decisions.”²⁵⁶

The information disseminated in the COT Report is information of extreme importance. It qualifies under the Guidelines as substantive notices, policy documents, studies and guidance relied upon by the agency to make decisions that could affect multiple federal and state agencies, local governments, tribes and private individuals in eleven western states and on tens of millions of acres of public lands. Conservation measures in Land Use Plan Amendments rely heavily upon the NTT and COT Reports. Many of the action alternatives in the 98 Land Use Plan Amendments were largely derived from the COT Report.²⁵⁷

²⁵⁵ 67 Fed. Reg. 8452 (Feb. 22, 2002).

²⁵⁶ 67 Fed. Reg. 8452, 8455 (Feb. 22, 2002).

²⁵⁷ BLM, *Federal Agencies Announce Initial Step to Incorporate Greater Sage-Grouse Conservation Measures into Land Management Plans* (Dec. 8, 2011) (“Greater sage-grouse currently use as much as 47 million acres of land

This information is clearly “influential scientific, financial, or statistical information” that crosses state and agency boundaries and affects private and public decisions under the DQA and the Guidelines. FWS Guidelines define influential information to be that which “will have or does have a clear and substantial impact on important public policy or private sector decisions, and thus, a decision or action to be taken by the Director.”²⁵⁸ “As a general rule,” the document notes, “FWS considers an impact clear and substantial when a specific piece of information or body of information is a principal basis for a FWS position.”²⁵⁹ In this case, the COT Report is the principal basis on which FWS will judge threats to GRSG and measures designed to address them.

An even higher level of scrutiny is applied to highly influential scientific assessments. Highly influential scientific assessments are those that “the agency or the [OMB Office of Information and Regulatory Affairs] Administrator determines . . . could have a potential impact of more than \$500 million in any one year on either the public or private sector or that . . . is novel, controversial, or precedent-setting, or has significant interagency interest.”²⁶⁰ Such is clearly the case here. As noted above, BLM and USFS are implementing some 98 Land Use Plan Amendments across eleven western states in substantial reliance upon the COT Report. The economic impact of these regulatory changes will last for potentially decades and will far exceed \$500 million. These are clearly controversial, novel, precedent-setting issues of significant interagency and public interest.

managed by the BLM, and about nine million acres of land managed by the USFS. As many as 98 BLM Resource Management Plans address greater sage-grouse, while the USFS expects to evaluate conservation measures into as many as nine Land and Resource Management Plans considered high priority for the conservation of sage-grouse.”).

²⁵⁸ U.S. Fish and Wildlife Service, *Information Quality Guidelines and Peer Review*, at 5 (2012): http://www.fws.gov/informationquality/topics/InformationQualityGuidelinesrevised6_6_12.pdf.

²⁵⁹ *Id.*

²⁶⁰ U.S. Office of Management and Budget, *Final Information Quality Bulletin for Peer Review*, at 23 (2004) (hereinafter *OMB Peer Review Bulletin*): <http://www.whitehouse.gov/sites/default/files/omb/assets/omb/memoranda/fy2005/m05-03.pdf>.

In this case, the COT Report is influential in that it, “will have or does have a clear and substantial impact on important public policy or private sector decisions, and thus, a decision or action to be taken by the Director, FWS....”²⁶¹ The COT Report also qualifies as a highly influential scientific assessment such that even more rigorous standards apply.²⁶² The COT Report is novel, controversial and precedent-setting with significant interagency interest.²⁶³ The economic impact of these regulatory changes will last for potentially decades and will likely far exceed \$500 million.

E. Petitioners are “Affected Person(s)” Qualified to Bring a DQA Challenge

OMB’s Guidelines also require each agency to establish administrative mechanisms that allow “affected persons” to seek and obtain the correction of information that does not meet the OMB Guidelines.²⁶⁴ OMB makes clear that the purpose of the administrative mechanism is to “facilitate public review” of agency compliance with the Guidelines.²⁶⁵ OMB Guidelines concluded that “affected persons are people who may benefit or be harmed by the disseminated information. This includes persons who are seeking to address information about themselves as well as persons who use information.”²⁶⁶ Such a definition provides the public with a right to agency-disseminated information that meets high DQA standards; and with a right to correct any publicly disseminated information that does not meet these standards. FWS Guidelines provide that any individual or person “who may use, benefit from, or be harmed by the disseminated information with a material impact to their interests” is an “affected person.”²⁶⁷

²⁶¹ See FWS Guidelines III-10.

²⁶² OMB Peer Review Bulletin at 23.

²⁶³ *Id.*

²⁶⁴ 67 Fed. Reg. at 8452.

²⁶⁵ *Id.*

²⁶⁶ 66 Fed. Reg. 49718, 49721 (Sept 28, 2001).

²⁶⁷ See FWS Guidelines III-5.

Petitioners are “affected persons” within the meaning of the Guidelines. Petitioners and their members or constituents have a distinct interest in the conservation of GRSG and rely upon public and private lands within the range of the GRSG for the production of natural resources, agricultural goods and products, for revenues distributed to the states and local governments, for recreation and for wildlife conservation. Petitioners have a reasonable likelihood of suffering actual harm from dissemination of the COT Report unless FWS resolves this complaint prior to the final agency actions and information products at issue herein. There is no separate process or mechanism by which Petitioners can raise these issues or seek redress regarding the fundamental flaws and shortcomings of the COT Report.

Petitioners have used, and will use, the information disseminated to better inform and to guide in their business decisions. Their members and/or constituents are affected by information regarding GRSG numbers, dispersal and distribution as well as alleged threats to the species. Where the species is located, how it disperses, and where it is distributed could have strict regulatory consequences to those that produce agricultural products and energy and natural resources from public lands that could be affected. In addition, the local governments rely upon continued access to public lands for natural resources and recreation and the tax and other revenues they generate. Accordingly, Petitioners could be benefited by, or be harmed by the faulty information at issue.

Petitioners are involved in extensive conservation efforts across the West to conserve the GRSG while also preventing unfounded federal regulatory restrictions from a listing under the ESA, which would prove less effective than the state and local efforts underway. These conservation efforts include the collection of data and the compilation of ongoing state, local and private conservation efforts for the GRSG. Petitioners have established their interests in

ensuring that their members and constituents, as well as the public at large, have the opportunity for open and robust debate regarding the information disseminated.

VI. The COT Report Does Not Comply with Other Federal Standards

While scientific integrity and transparency in agency decision making are enumerated priorities for this administration, the NTT Report falls far short of these goals.

A. The COT Report Does Not Comply with Presidential Direction on Scientific Integrity and Transparency

While scientific integrity and transparency in agency decision making are enumerated priorities for this administration, the COT Report falls far short of these goals. The COT Report also falls short of the President's direction to executive departments and agencies. On March 9, 2009, President Obama issued a Memorandum setting forth principles "for ensuring the highest level of integrity in all aspects of the executive branch's involvement with scientific and technological processes."²⁶⁸ When scientific or technological information is considered in policy decisions, the information is to be subject to well-established scientific processes, including peer review where appropriate. Agencies are directed to appropriately and accurately reflect that information in complying with relevant statutory standards.²⁶⁹ Such was not the case here. For example, the COT Report relies heavily on Garton et al. 2011 which, itself, is fraught with issues including significant mathematical errors. *E.g.* Exhibit A at 2.

President Obama committed to "an unprecedented level of openness in Government," by "work[ing] together to ensure the public trust and establish a system of transparency, public

²⁶⁸ 74 Fed. Reg. 10671, 10671 (March 11, 2009).

²⁶⁹ *Id.*

participation, and collaboration.”²⁷⁰ President Obama believes that “[o]penness will strengthen our democracy and promote efficiency and effectiveness in Government.”²⁷¹

In this case, the COT Report has been far from transparent. FWS failed to disclose virtually any information relative to transparency and the COT Report until forced to do so by the Alliance’s FOIA litigation.

President Obama reaffirmed his commitment to scientific integrity as part of his second term’s scientific agenda in 2012.²⁷² More specifically, the president has “insisted that we be open and honest with the American people about the science behind our decisions.”²⁷³ Furthermore, “only by ensuring that scientific data is never distorted or concealed to serve a political agenda, making scientific decisions based on facts, not ideology, and including the public in our decision making process will we harness the power of science to achieve our goals – to preserve our environment and protect our national security; to create the jobs of the future, and live longer, healthier lives.”²⁷⁴

As discussed herein, the COT Report presents a distorted and biased view of threats to GRSG and mechanisms proposed to protect them. The COT Report is rife with misrepresentation, misuse of citations and reliance on opinion rather than the scientific method. *See Exhibits A and B, gen.*

B. The COT Report Fails to Comply with DOI Scientific Integrity Standards

The COT Report also runs afoul of DOI direction on scientific integrity. The DOI Manual implemented a secretarial order: Integrity of Scientific and Scholarly Activities

²⁷⁰ Barack Obama, *Transparency and Open Government: Memorandum for the Heads of Executive Departments and Agencies*, http://www.whitehouse.gov/the_press_office/TransparencyandOpenGovernment (last visited Dec. 2, 2014, 1:12 PM).

²⁷¹ *Id.*

²⁷² *See* Barack Obama, Science Debate 2012, <http://www.sciencedebate.org/debate12/> at No. 11 (Sept. 4, 2012).

²⁷³ *Id.*

²⁷⁴ *Id.*

(effective Jan. 28, 2011).²⁷⁵ The Manual defines “scientific and scholarly integrity” to mean, “[t]he condition resulting from adherence to professional values and practices, when conducting and applying the results of science and scholarship, that ensures objectively, clarity, reproducibility, and utility.”²⁷⁶ Unfortunately, the COT Report suffers from a lack of objectivity, clarity, reproducibility and utility. *See* Exhibit A at 1-2, 5, and 8 *see also* Exhibit B at 16-17, 24-27, and 29.

On December 16, 2014, DOI updated and strengthened the policy to “ensure that all Interior employees and contractors uphold the principles of scientific integrity.”²⁷⁷ The policy is to establish the expectations for how scientific and scholarly information is considered and used:

“Scholarly information considered in Departmental decision making must be robust, of the highest quality, and the result of as rigorous scientific and scholarly processes as can be achieved. Most importantly, it must be trustworthy. This policy helps us to achieve that standard.”²⁷⁸

The COT Report does not meet the standards of quality and robustness required. It was hardly as “rigorous scientific and scholarly process[es] as can be achieved.” *See* Exhibit A, *gen.*

FWS has also failed to meet its charge in OMB Circular A-130, “[A]gencies should inform the public as to the limitations inherent in the information dissemination product (e.g., possibility of errors, degree of reliability, and validity) so that users are fully aware of the quality and integrity of the information.”²⁷⁹ The COT Report has clearly glossed over limitations inherent in the report and the studies cited therein. *See* Exhibit B, *gen.*

²⁷⁵ DOI Manual, available at <http://elips.doi.gov/elips/browse.aspx>.

²⁷⁶ *Id.*

²⁷⁷ U.S. Department of the Interior, *Press Release: Interior Department Announces Strengthened Scientific Integrity Policy for Employees and Contractors*,

²⁷⁸ 305 DM 3.4.; I:\Western Energy Alliance\DQA Challenge\Research\Interior Dept. New Policy\Integrity of Scientific and Scholarly Activities.html (emphasis added).

²⁷⁹ http://www.whitehouse.gov/omb/circulars_a130

C. Paperwork Reduction Act

We question whether FWS demonstrated in a Paperwork Reduction Act submission to OMB that the proposed collection of information in the COT Report was collected, maintained and used consistent with the DQA Guidelines.²⁸⁰ **Please confirm.**

VII. Conclusion

The COT Report is a highly influential document, as BLM and USFS are using it to make substantial land use decisions across nearly 60 million acres of public lands throughout eleven western states. As such, it must adhere to the standards of quality, integrity, objectivity and utility in the DQA as well as administration standards of scientific integrity and transparency. Unfortunately, the COT Report fails to meet these requirements. Much of what it presents as “science” has no basis in scientific design or scientific evidence. The most frequently cited sources in the COT Report contain fundamental flaws including gaps in crucial data, data that are not public, recurrent uncertainties, methodological bias, selective presentation of information, misrepresentation of cited studies and suspect peer reviews. *See Exhibits A, and B, gen.*

FWS should rely upon data of the highest integrity and accuracy in the COT Report. Opinions must not be represented as fact nor dictate decisions that are required to be based on scientific data. The COT Report violates the DQA, the Guidelines as well as the secretarial, presidential and other authorities cited herein. Much of what it presents as “science” has no basis in scientific design or scientific evidence.

The COT Report is not presented in an accurate, reliable and unbiased manner. The COT Report cherry-picks what scientific papers it wished to discuss, presents misleading information, much of it out of context, and simply ignores large numbers of studies that refute many of its conclusions.

²⁸⁰ DOI Guidelines VI.

The COT Report does not represent the best available science as required to meet the standards of quality, objectivity and integrity required in the DQA. Rather, the COT Report is comprised of assumptions built upon assumptions. It fails to address the limitations of the underlying data and studies used to reach its conclusions and fails to acknowledge that circumstantial evidence rather than scientific evidence underlies most of the information presented.

FWS cannot rely on the biased opinions and selective presentation of information to support recommendations that are unsupported by data. FWS not only violates BLM's multiple-use mandate, but elevates GRSG concerns above human health, safety, and scientific transparency and integrity. Because the information disseminated in the COT Report is not objective, it also fails to have any utility for those persons making management decisions regarding multiple uses of the public lands. As detailed in the text herein and in Exhibits A and B, the COT Report failed to:

- Use sound analytical methods in carrying out scientific analyses and in preparing risk assessments
- Use reasonably reliable and reasonably timely data and information i.e., collected data such as from surveys, compiled information, and/or expert opinion
- Ensure transparency in its dissemination by identifying known sources of error and limitations in the data
- Evaluate data quality and, where practicable, validate the data against other information when using or combining data from different sources
- Ensure transparency of the analysis, to the extent possible, consistent with confidentiality protections, by
 - Presenting a clear explanation of the analysis to the intended audience
 - Providing transparent documentation of data sources, methodology, assumptions, limitations, uncertainty, computations, and constraints
 - Explaining the rationale for using certain data over other data in the analyses

- Presenting the model or analysis logically so that the conclusions and recommendations are well supported.
- Clearly identify sources of uncertainty affecting data quality
- Clearly state the uncertainty of final quantitative estimates
- Demonstrate that the data and data collection systems used are of sufficient quality and precision that uncertainty in the final estimates is appropriately reproducible
- Provide an explanation of the nature of uncertainty in the analysis.

The errors contained in the COT Report are improperly influencing BLM and USFS decision-making about management of the public lands. Reliance on this biased and faulty information has and will continue to harm the Petitioners and their members. In addition to the damage to the Petitioners, the public, GRSG and the economy will be negatively impacted based upon the errors in the COT Report.

The Petitioners respectfully request FWS retract the COT Report and all reliance thereon in existing and subsequent Land Use Plans Amendments, as well as applicable decisions on listed status of GRSG and/or on permits and authorizations. Alternatively, FWS could, as required by the DQA and the Guidelines, issue an amended COT Report that uses sound analytical methods and the best data available while ensuring transparency and objectivity. Any amended Report should incorporate all reliable information, not just the data supporting false hypothesis. It should also identify the limitations of data used rather than stating assumptions as fact. Finally, any amended Report should use and include the best available data as discussed herein.

Respectfully submitted this 18th day of March, 2015.

Holsinger Law, LLC

A handwritten signature in black ink, appearing to read 'K. Holsinger', with a stylized flourish at the end.

Kent Holsinger
Attorney for Petitioners